

AMERICAN AGRICULTURIST,

FOR THE

Farm, Garden, and Household.

"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL, AND MOST NOBLE EMPLOYMENT OF MAN."—WASHINGTON.

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Notes and Suggestions for February.

Winter wanes slowly. The early riser finds the dawn gradually encroaching on the prolonged darkness; here and there an untimely lamb sends forth a piteous wail, and occasionally an hour of sunshine speaks warmly of advancing spring; but lowering clouds and fitful storms quickly warn the impatient buds to bide their time and not trust the apparently relenting heart of winter. These hints of the coming season should not be lost. If a full plan of operations for the year be not perfected, lose no time in its completion. A map of the farm will be of great assistance in this work. It need not be an accurate survey of each lot, though this would be more satisfactory; a plain outline of boundaries and measurements taken with a marked pole, will be sufficient. Great caution should be exercised in making radical changes. Many have been tempted by the high price of sheep to sell out an established dairy, or to seed down their green fields, and are up to their eyes in wool, if indeed it has not been pulled over their eyes. An article on this topic in the present number contains timely hints. Equally unwise is an immovable conservatism, that cannot be attracted from following the "good old ways." Many will find sorghum culture worth a trial; an acre or more of roots for next winter's feeding should not be forgotten; perhaps less grain and more fruit will give better returns. The most successful campaigns are always first developed on paper in good plans.

Animals of most kinds kept on farms at the North are in an artificial condition, to which however they have become habituated by long training. It should be the aim of the owner to make their circumstances as nearly natural as the case will permit. Thus, succulent food, in

the shape of roots, should accompany dry fodder; shelter should not preclude fresh air; opportunities for exercise should be allowed; warm litter for comfortable rest is essential; in short, comfort and profit are almost inseparable. The morals of the stock yard should be carefully watched. A vicious horse or unruly steer is intolerable. Prevention is easy; train up young animals with kindness, and they will return it with interest; send to the slaughter pen incorrigible brutes, though made so by bad management.

Advertisements are profitable reading. They usually indicate what progress the world is making. To farmers they are invaluable. Notes on tools, seeds, stock, trees, plants, etc., should be made, and further information gained by sending for circulars of trustworthy parties. The *Agriculturist* aims to admit no other class.

Ashes, fresh from the fire, should not be emptied into wooden smoke-houses. A few smouldering sparks may be sufficient to fire the structure, destroy its contents, and cause great loss; at least the lower part should be brick or stone.

Apples.—Sort over those commencing to decay and feed, if no better use can be made of them.

Bags, Barrels, Baskets, etc., used for marketing, or kept at home, should be plainly marked with the owner's name and residence. A branding-iron or marking-plate and brush, will save much loss. Improve leisure by putting all in repair. For convenient bag-string, see p. 139, last year.

Buildings.—Clear roofs from too heavy snow, stop leaks, keep eaves-troughs free, paint where needed, fasten loose boards, keep manure away from sills, oil rusty hinges, see that fastenings are in order, and all repairs promptly made. Get out timber for sheds sufficient to shelter all stock. Study economy and convenience in plans.

Birds.—Prepare neat houses for martins, bluebirds, and wrens, to be put up about the house, fruit yard, and farm. The occupants next season will pay good rent by destroying multitudes of insects, and sing grateful thanks.

Butter brings golden prices; make the product of the same color, with carrots strained into the milk through the stomach of the cow.

Calves dropped in February will bring large prices in March, but at present prices of butter and milk, will cost largely to fat. If to be raised, wean early, and feed well with skimmed milk, clover tea and gruel. Keep well sheltered. Wheat flour boiled in milk checks scours.

Cows.—Dry off six to four weeks before calving. Give generous feed of hay and roots, but not much grain. Cut hay or straw steamed, and a little bran or meal added, is profitable. Keep the skin healthy by frequent carding and brushing. Those about to calve should be turned loose into separate, roomy stalls. Watch their time, to give assistance, if needed, but do not interfere, unless absolutely necessary, and then use gentle means. Allow the calf to have

the milk for a day or two. Its effect is medicinal and necessary to the new-born animal. After calving, give the cow a warm bran mash, made with scalding water, and afterward her ordinary feed, increasing the amount of roots and grain to promote the flow of milk, and prevent the exhaustion of the animal.

Debts contracted before the war can now be paid at half price; that is, owing to high prices half the produce required then will suffice now. Lift mortgages rather than buy carriages or other non-essentials. A pinching time will come.

Dogs.—Unite with your neighbors in urging your representatives at the Legislature to protect sheep raising from the ravages of destructive curs, by strong laws. See article on page 42.

Farmers' Clubs.—The meetings may be made interesting by committees appointed to investigate and report on various subjects; as new crops proposed, new implements, the condition of farms in the vicinity, etc.; by correspondence with other similar associations, and occasional joint meetings of the clubs of a township. New facts and experience worthy of general notice, should be communicated to the public journals.

Food for cattle and hogs will be improved and economized by steaming. A good apparatus, especially for this purpose, will pay where many animals are kept. A large kettle will do.

Grain.—Carefully study price lists, and improve good weather for marketing produce.

Horses.—A few carrots with their grain will aid digestion and appetite, and improve their coats. Exercise daily. Train colts so that no breaking will be needed, either of spirit or of harness. Keep working and carriage horses sharp shod, well groomed, and blanketed when standing out, or in cold stables after exercise. Ventilate stables, and abolish high feeding racks.

Ice.—Secure a full supply, if not already done. In good weather an ice-house may be made and filled within a week. One will pay on a dairy farm, and be convenient everywhere.

Manure.—Mix plenty of muck, especially with that from the horse stable, to prevent fire fanging; or, in absence of this, fork over the pile to prevent too great heat. All deposits now made in readiness for use in spring, will respond to drafts to be made for good crops next fall. Keep a heavy balance in your favor to draw upon.

Money lent to the government on its bonds, repays good interest, is safe, and may be readily called in under any emergency, in addition to furnishing strength for crushing the rebellion and securing permanent peace and prosperity.

Maple Sugar.—The high price of sugar should stimulate the largest possible production. The first flow of sap is the richest; make preparation to secure it during the open weather, which often occurs in February. See article on p. 40.

Poultry.—Insist on having eggs. Warm, clean quarters, cooked grain and potatoes, scraps of

meat, powdered bones, or lime, gravel, ashes and warm water, are the convincing arguments.

Roots.—Sort over, remove decayed ones to be cooked and fed immediately, and keep a supply of the soundest for breeding animals, or those failing in appetite, as spring approaches. No decayed turnips, rutabagas, or cabbages should be fed to milk cows, or bad flavor will be imparted to the milk.

Sheep.—Exercise and fresh air are essential to their health. Shelters must be well ventilated, not crowded, and the sheep turned out daily, except in severe storms. Roots, fed with grain, will be returned in wool and mutton. Pregnant ewes should have little if any grain, but roots with hay. Those yearning early will need separate, clean, not over-littered apartments, and careful attention, that the lambs be not fatally chilled. See pages 42, 43.

Swine.—Keep them at work among the muck and manure. Allow breeding sows, near farrowing, potatoes or other succulent food, with bran or linseed meal. Give them clean, well littered sties, but not straw enough to endanger the young by over-laying of the mother. A projecting shelf, eight inches high, on the sides of the pen, will allow the pigs to escape much danger from this source.

Tools and Implements.—Have all in repair and readiness for spring work. In the end, buying is cheaper than borrowing. Consult advertisements, send for catalogues and circulars for information about new implements, and always get the best.

Wood.—Save many late dinners, and much needless scolding, and annoyance in the household, by having a year's stock cut and stored under cover.

Work in the Orchard and Nursery.

—Read over the notes of last month, and see if there is not some hint there given that may be followed with advantage. The season precludes much in the way of work, but allows time for abundant planning. Do not postpone selecting fruit trees, and sending orders, beyond this month. Take advantage of a damp, warm spell, if one occurs this month, to give old trees a good washing and scraping. A thorough application of soft soap, made thin enough with water to work with a broom, will be death to insects and moss, and will make the old trunk look like a new one. Continue root grafting, cut cions, and look after seeds stored in sand for spring planting; see that mice do not trouble them. Among other applications to prevent rabbits from gnawing trees, we find a wash made with lime and strong tobacco water recommended. Apply a poultice of cow dung and loam to barked trees. Do everything now that will save a day in April.

Kitchen Garden.—Generally the gardens are, during this month, covered with snow, or frozen so hard that nothing can be done. The work of preparation hinted at last month, ought not to be forgotten, and everything that can be done in getting tools, seeds, manures and all implements in readiness, should be well attended to.

In family gardens it is not necessary to start the hot-bed until next month, but where very early vegetables are required it may be done sooner. The market gardeners around New York start their hot-beds about the middle or end of February. The plants are, however, transplanted into other beds, or potted and kept under glass until the weather allows them to be put into open ground. Six weeks in advance of the time at which the plants can be set out, is a safe rule for the hot-bed in the family garden. Stable manure is the main reliance as a heating material, but may be mixed with leaves or spent hops from the breweries. Sash 6 feet long and about 3 feet wide, are usually employed, but the width is governed by the size of glass. The frame is of stout boards or plank, 1 foot high at front and 2 or 2½ feet at back, and of a sufficient length to accommodate 2, 3, or more sashes. A detailed description was given in March last. The bed of manure should be at least 18 inches wider and longer than the frame, and built up at least 2 feet high, the manure being spread evenly, and made compact by beating the layers down with the fork. Set on the frame, and put in

6 inches of rich earth, which should have been made ready last fall. The temperature of the bed will at first be too violent, and the sash must be raised during the day for several days. When the temperature moderates to about 70° the seed may be sown. The manure, by using it for a hot-bed, is brought into most excellent condition for application to the garden later in the season.

Forcing of Asparagus and Rhubarb may be practiced by those who have the conveniences. Roots of either may be placed in a hot-bed, or fermenting dung may be placed around them where they stand in the beds. We have seen excellent rhubarb stalks from roots placed in a barrel in a warm cellar.

Dig Horseradish, Parsnips, and Salsify whenever the ground is open. Lay in a stock of seeds for the reason suggested on page 53. Haul out manure while the ground is still hard.

Fruit Garden.—The out-door work is limited to few things. If grape vines were neglected last autumn, they may be pruned in mild weather this month. If any dwarf trees are of unsatisfactory kinds, look out for cions of choice varieties to graft them with. Cuttings of currants and gooseberries may be made and saved in the cellar until planting time. Pruning dwarf trees may be done with the knife. See that the covering of strawberry beds does not get removed by the storms.

Flower Garden and Lawn.—Make and perfect plans for the improvement of the grounds. Some hints for front yards are given on page 50. Draw all plans to an exact scale. Give air to plants in cold frames on mild days. Prune and thin out shrubbery that has become overgrown. Rhododendrons and other broad-leaved evergreens need protection from the great alternations of temperature which occur as spring approaches. Evergreens must not be allowed to break down from the weight of snow. Trellises, vases, and other garden ornaments and appliances can be made at leisure. See designs given last month. Hot-beds for starting annuals, etc., should be prepared for, but next month will be early enough to start them.

Green and Hot-Houses.—Admit air freely to all hard-wooded plants, whenever the atmosphere is clear and the outside temperature is 8 to 10 degrees above freezing. During damp, foggy spells, a little fire should be used, even if the temperature does not appear to require it.

Achimenes, Gesneras and Gloxinias.—Place some in pots, give bottom heat, and start for early bloom.

Azaleas and Camellias.—Those intended for late blooming should be kept as cool as possible, without injury by frost, and shaded. Those just opening their buds, put in warmer part of the house, and give manure water. They repay any attention.

Bulbs.—A succession of flowers should be kept up. These will like liquid manure.

Cinerarias.—These bloom best in small pots. Those intended to bloom later should be kept growing, by shifting them to larger pots. Give weak manure water to those already in bloom.

Dendzia gracilis and Scabra.—These hardy shrubs make fine green-house plants, when forced. They need a warm place to start them.

Dicentra.—Plants of this in pots may be brought into a warm part of the house, and they will soon show their beautiful bloom.

Fuchsias.—Some of these may be started for early flowering by cutting back freely, and giving them a little bottom heat at first. Do not repot until they have made a new growth.

Insects.—Cleanliness and cultivation will do much towards keeping them down. Crush each one as soon as seen. If necessary to resort to fumigation, do not wait until they have half killed the plant.

Manure Water.—This is beneficial to growing plants, if not used too strong. Half a bushel of sheep or cow droppings to a hoghead of water will be strong enough. It should be clear when used.

Primulas.—The Chinese Primroses, especially the double ones, are fine ornaments to the house.

They keep long in bloom, if not exposed to extremes of temperature and are benefited by manure water.

Scarlet Geraniums.—Old plants which have been stored away for the winter are apt to become damp and mouldy. Remove all decayed portions and bring to a drier and warmer place.

Succulents, such as Cactuses and Mesembryanthemums, need little water, except they are growing.

Water only when the soil is getting dry, and then copiously with that at the temperature of the house.

Apiary in January.—Prepared by M. Quinby.

—If the weather is sufficiently warm for the bees to come out when there is a newly fallen snow, the directions for last month should be observed. Keep open the air passages. Sweep out dead bees and filth, whenever all frost leaves the hive. If any stock is to be changed to a new stand, arrange it now before the bees fly out to mark their present locality. Place stands at least six feet apart wherever there is room. A less distance is allowable only for want of room, or when a fertile queen can be provided for swarming hives. Indeed, ornamental bee-houses, so strongly coveted by some, in which the hives are set quite close together, can be made nearly as profitable as any, if queens are furnished; but the movable comb hive of some kind is required for this purpose. When standing thus, the hive may be allowed to swarm, and seven days afterward, before any of the young queens hatch, the royal cells should be removed, and the queen introduced. If this system of management is contemplated for the coming season, or if the Italians are to be propagated, the boxes for raising queens should be made now. Make a miniature hive less than six inches square, of the pattern of any movable comb hive used, and containing not less than three combs. Fit clean worker combs in the frames, and expose to severe freezing, to kill all moth eggs that may be in them. For method of Italianizing bees in box hives, see page 43.

Twenty Good Premiums For Volume 24.—1865.

The following excellent premiums are continued. They are worthy of strong effort. For full particulars, see page 2nd of January number. There is no change in the terms, except that the Book list of this month (page 63,) is to be referred to instead of that of last month, as prices have changed somewhat.

Table of Premiums and Terms, For Volume 24. Open to all—No Competition.

Names of Premium Articles.		Price of Premiums.	Names at \$1.00 each.	Names at \$1.50 each.
1—Good Books.—See terms last month.	85 00	14	60	
2—Case of Drawing Instruments.	10 00	17	70	
3—Best Family Clothes-Wringer.	10 00	19	80	
4—Duty's Washing Machine.	12 00	20	80	
5—Sewing Machine, (Wheeler & Wilson).	25 00	30	80	
6—Four Octave Melodeon (best).	12 00	40	400	
7—Five Octave Melodeon (best).	12 00	140	600	
8—Brown's Baby Tender.	20 00	37	150	
9—Brown's Baby Tender.	42 00	52	250	
10—Woodruff's Mercurial Barometer.	10 00	17	70	
11—Woodruff's Mercurial Barometer.	15 00	21	90	
12—The Aquarium.	12 00	18	80	
13—Ladies' Rosewood Writing Desk.	12 00	15	80	
14—Gentleman's do do do.	14 00	21	90	
15—Any back Volume Agriculturist.	1 50	20	30	
16—Any Two do do do.	3 00	25	30	
17—Any Three do do do.	4 50	30	30	
18—Any Four do do do.	6 00	11	40	
19—Any Five do do do.	7 50	13	50	
20—Strawberry Plants.—See Terms last month.				

Commercial Notes—Prices Current.

New-York, Jan. 20, 1865.

We give herewith seven very condensed and convenient tables, the first two referring to the transactions in the New York markets during a month ending January 16, to which date they are made up. These tables have been carefully prepared, specially for the *American Agriculturist*, from official and other reliable sources, including the notes of our own reporter. They will be found highly interesting, as showing the course of trade and giving a general view of the condition of our bread-stuff supplies. They will also be valuable for reference in after years.—During the past month, there has been little noteworthy in the Breadstuff Markets. The prices have varied from day to day, with the rise and fall of gold. The price table herewith, shows a little decline, and as gold is "weak" just now, rates are tending downward rapidly. The same is the case with other produce, cotton, etc. If the military successes continue as they

promise to do, gold must go down materially, and carry down with it the prices of farm produce, dry goods, etc.

1. TRANSACTIONS AT THE NEW-YORK MARKETS.

RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
28 days this m'th.	231,000	11,000	137,000	10,500	24,000	173,000
24 days last m'th.	237,000	11,000	137,000	10,500	24,000	173,000
24 days last m'th.	237,000	11,000	137,000	10,500	24,000	173,000

SALES.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
28 days this month.	267,000	461,000	384,000	33,500	141,000	141,000
24 days last month.	416,000	1,061,000	655,000	104,000	434,000	434,000

2. Comparison with same period at this time last year.

RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
28 days 1865.	231,000	11,000	137,000	10,500	24,000	173,000
24 days 1864.	232,000	11,500	96,000	7,500	58,500	273,000

SALES.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
28 days 1865.	267,000	461,000	384,000	33,500	141,000	141,000
24 days 1864.	297,500	2,573,000	1,467,000	29,000	102,700	102,700

3. Exports from New-York, January 1 to January 20.

	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
1865.	47,742	43,831	5,550	141	1,825	1,825
1864.	90,384	633,900	4,793			647

4. Exports from New-York during each of 6 years past.

	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
1864.	1,918,592	12,193,433	846,831	538	150	42,135
1863.	1,527,553	15,434,889	7,553,431	416,369	52,439	126,556
1862.	2,961,513	25,294,735	12,620,548	1,041,519	42,061	210,869
1861.	3,110,316	28,898,314	12,839,850	1,000,405	3,927	160,825
1860.	1,926,202	13,538,039	4,055,082	450	8,280	103,076
1859.	1,038,516	297,587	497,385		6,550	2,568

5. Stock of Flour in New-York City, January 1.

	1862.	1863.	1864.	1865.
Western Canal Flour, bbls.	447,056	721,383	550,444	465,835
Canadian Flour, bbls.	11,100	2,405	15,100	4,950
Southern Flour, bbls.	96,956	28,500	33,100	37,463
Total.	455,112	752,288	600,644	508,248

6. Stock of Grain in New-York, January 1.

	1861.	1862.	1863.	1864.	1865.
Wheat, bushels.	3,353,741	2,046,052	4,234,013	1,731,320	1,807,356
Corn, bushels.	2,712,000	5,523,911	4,223,013	1,731,320	464,414
Rye, bushels.	26,400	55,500	32,270	37,409	212,298
Barley, bushels.	109,574	435,472	99,335	584,700	304,164
Oats, bushels.	491,790	774,575	531,312	3,541,836	3,018,301

7. Receipts of Breadstuffs at Albany, by the Erie and Champlain Canals in each of the last five seasons.

	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
1860.	1,149,100	11,176,000	14,155,500	322,100	2,967,600	6,490,900
1861.	1,493,238	30,856,087	23,342,334	892,792	2,233,850	5,978,338
1862.	1,826,609	32,667,506	23,809,882	748,897	2,567,659	5,960,028
1863.	1,560,500	22,206,900	20,603,600	470,500	3,190,500	12,438,500
1864.	1,184,300	13,465,600	10,352,400	620,300	2,405,900	12,177,500

CURRENT WHOLESALE PRICES.

	Dec. 16.	Jan. 20.
Flour—Super to Extra	\$9 85	\$10 60
Super to Extra Southern	10 85	10 50
Extra Western	10 25	10 10
Extra Genesee	10 00	10 10
Superline Western	9 85	10 10
Rye Flour	8 50	9 25
CORN MEAL	7 75	8 00
WHEAT—All kinds of White	2 50	2 75
All kinds of Red	2 25	2 50
CORN—Yellow	1 70	2 00
Mixed	1 90	2 10
OATS—Western	1 06	1 10
State	1 03	1 04
RYE	1 72	1 85
BARLEY	1 75	2 00
COTTON—Middle, per lb.	1 32	1 33
Hops, crop of 1864, per lb.	20	25
FEATHERS, Live Geese, p. lb.	80	82
SEED—Clover, per lb.	24	25
Timothy, per bushel.	5 75	6 12
FLAX, per bushel.	3 45	3 70
SUGAR—Brown, per lb.	16 1/2	17 1/2
MOLASSES, New-Orleans, p. gal.	1 10	1 27
COFFEE, Rio, per lb.	44 1/2	48
TOBACCO—Kentucky, &c., p. lb.	12 1/2	14
Seed Leaf, per lb.	16	16
WOOL—Domestic fleeces, p. lb.	90	1 12 1/2
Domestic, pulled, per lb.	70	1 02 1/2
California, unwashed	25	27 1/2
TALLOW, per lb.	17 1/2	18 1/2
OLIVE OIL, per tun.	80 50	92 50
PORK—Mess, per bbl.	37 50	41 50
Prime, per bbl.	35 00	39 50
BEER—Plain mess	18 50	21 50
LARD, in bbls., per lb.	21	24 1/2
BUTTER—Western, per lb.	33	35
State, per lb.	45	58
CHEESE	15	24
BEANS—per bushel.	2 75	3 00
PEAS—Canada, per bushel.	Nominal	2 20
EGGS—Fresh, per dozen	37	42
POULTRY—Fowls, per lb.	18	21
Turkeys, per lb.	20	23
POTATOES—Merced, p. bbl.	3 00	3 75
Peach Blow, per bbl.	2 75	3 00
APPLES—per bbl.	3 75	5 00
Apples, R.I. Greenings, per bbl.	3 75	5 50
Apples—Russets, per bbl.	3 75	5 00

N. Y. Live Stock Markets.—Beef

Cattle have been less abundant, averaging 4,942 head per week, or 1,506 less than in previous month, with small supply Jan. 17. Prices range at 21c. @ 23c. per lb. estimated dressed weight, for best or extras; 19c. @ 20c. for very good; and so down to 14c. for the poorest. Average of all sales 15 1/2c. or 16c.

Milk Cows.

—Average weekly receipts 63, with small demand. Very good milkers \$70 @ \$90. Extras, \$100 and upwards. Common to poor, \$65 @ \$45 each.

Veal Calves

are in less supply, averaging 511 per week, and higher this week. The best 13c. @ 14c. lb. live weight, and thence down to 10c. for poor.

Sheep

come in freely for the season, averaging 14,594 per week. With a good demand the last sales were 14c. per lb. live weight for extras; the poorest 9 1/2c.; other grades between these figures, according to quality.

Live Hogs

not abundant, receipts averaging only 14,962 per week for the month past. Last sales at

14c. @ 14 1/2c. per lb. live weight for best corn-fed; 13 @ 14c. for inferior to good corn-fed; 11c. for poorest still-fed.

Live Stock Trade in N. Y. City, for 1864.

As a matter of general interest, and for future reference, we give our usual summary of the Live Stock Trade during the past year, taken from the records of our own reporters who have been at the principal markets every Monday and Tuesday, the regular days of sale. These figures we have already furnished to other journals, but repeat them here for the benefit of the readers of the *American Agriculturist*, and to thus preserve them in a permanent form. The principal places of sale are at Allerton's Yards on 44th-street, near 4th Avenue; at Brownings and O'Brien's, on 6th-street, near 3d Avenue; at Chamberlin's, on Robinson-street, West of the City Hall; at the Bergen Yards just over the Hudson river, where they are landed from the Erie Railroad; and at the Western Hog Yards, foot of 40th-street, on the Hudson. Our tables include only the receipts at these regular market places. Many Calves and Sheep are sold from barges at the wharves, and some animals of all kinds are taken directly to the butchers. These are probably balanced by those taken out of the city again on Government account and by farmers, and by butchers in neighboring towns and cities, so that our figures below give a fair showing of the actual consumption for food and for packing purposes, in New-York and its suburbs, Brooklyn, and Jersey City. First we have the

WEEKLY RECEIPTS OF LIVE ANIMALS FOR 1864.

Week ending	Rece. of Cattle.	Net Price.	Milk Cows.	Veal Calves.	Sheep & Lbs.	Live Hogs.
Jan. 5.	4,022	104	115	621	9,561	9,988
Jan. 12.	4,149	111	108	468	10,473	6,898
Jan. 19.	4,845	104	150	401	15,894	6,180
Jan. 26.	5,308	104	144	829	7,751	6,640
Feb. 2.	5,200	101	163	369	14,979	15,796
Feb. 9.	4,852	103	143	496	11,192	5,877
Feb. 16.	4,679	129	156	367	12,281	6,297
Feb. 23.	4,845	124	149	389	12,862	7,603
Mar. 1.	8,291	121	219	499	11,777	8,544
Mar. 8.	4,583	124	213	510	9,015	7,226
Mar. 15.	5,272	124	264	598	14,672	9,960
Mar. 22.	3,259	128	237	508	5,511	6,776
Mar. 29.	5,058	131	179	834	12,430	8,361
April 5.	4,857	14	180	882	8,678	6,862
April 12.	4,244	15	163	1,872	9,676	11,379
April 19.	4,596	15	203	1,732	7,255	11,232
April 26.	4,108	144	124	1,379	10,180	8,814
May 3.	3,900	144	134	1,206	10,917	13,882
May 10.	3,917	154	196	1,270	7,405	18,598
May 17.	4,969	16	129	1,203	5,657	12,877
May 24.	3,814	164	173	1,000	5,162	11,118
May 31.	8,579	18	216	1,397	8,048	10,614
June 7.	4,629	174	183	1,221	8,618	14,221
June 14.	4,447	164	229	1,404	13,826	15,542
June 21.	4,469	16	208	1,824	11,952	10,085
June 28.	4,718	144	143	1,511	15,573	11,364
July 5.	3,504	16	110	1,555	14,229	14,287
July 12.	4,973	154	168	2,109	11,184	18,876
July 19.	3,765	16	162	2,705	14,147	18,860
July 26.	5,202	16	144	2,312	19,720	8,594
Aug. 2.	5,561	144	158	2,888	15,047	5,550
Aug. 9.	4,466	144	184	2,704	16,359	3,920
Aug. 16.	5,290	15	137	2,838	15,440	6,577
Aug. 23.	5,278	154	89	2,099	19,620	6,143
Aug. 30.	5,714	154	130	2,945	21,279	9,888
Sept. 6.	5,866	157	122	2,018	16,996	6,281
Sept. 13.	7,032	144	140	2,370	21,118	8,036
Sept. 20.	5,567	15	149	2,799	27,051	11,105
Sept. 27.	6,895	14	127	2,133	20,603	14,240
Oct. 4.	6,260	131	101	2,192	22,614	14,585
Oct. 11.	6,437	141	108	2,078	22,247	14,140
Oct. 18.	7,688	14	140	1,508	24,707	11,788
Oct. 25.	6,511	13	113	1,953	28,540	19,704
Nov. 1.	5,115	14	94	1,068	17,062	23,659
Nov. 8.	7,134	18	97	1,886	23,271	32,855
Nov. 15.	6,476	154	117	2,029	19,492	25,725
Nov. 22.	7,418	14	102	1,965	25,512	24,376
Nov. 29.	6,597	154	98	1,814	21,351	22,479
Dec. 6.	5,777	104	98	1,975	19,274	26,436
Dec. 13.	6,245	144	80	1,398	15,165	24,267
Dec. 20.	7,020	15	79	1,025	22,637	15,884
Dec. 27.	4,787	154	73	844	16,486	16,496
Totals.	267,068		7,576	76,361	777,990	657,092
Weekly av.	5 136	14 1/2	146	1,469	14,961	12,636

The second column gives the average net price of all the beef cattle sold each week, the prices for the different grades, running 2 to 5 cents per pound above and below this average, according to quality. The prices here are always based upon the estimated net or dressed weight of the four quarters, or the cost of the dressed carcass to the butcher. The skin, head, feet, loose tallow, etc., called the "fifth quarter," in the market, are reckoned against the expense of killing, dressing, etc.

	Total	Milk Cows.	Veal Calves.	Sheep & Lbs.	Live Hogs.	All Kinds.
1864.	267,068	7,576	76,361	777,990	657,092	1,766,087
1863.	263,229	6,715	86,238	522,311	1,066,778	1,924,598
1862.	235,660	5,253	90,258	175,722	1,987,712	1,845,608
1861.	226,023	5,816	83,883	527,355	591,569	1,857,321
1860.	226,747	7,154	40,162	514,191	819,623	1,107,852

COMPARATIVE RECEIPTS.

—The above table shows the annual total receipts of each kind of animals for

five years past, and the total of all kinds of animals. Beef Cattle have increased in numbers each year.—Milk Cows decreased in supply after the war upon the swill-milk establishments in 1860-1, but during the past year the receipts have exceeded even those of 1860.—Veal Calves were crowded in very freely last summer, owing to the high price of beef, the short pasturage, and the advance in dairy products, which led farmers to save all the milk possible. The receipts exceeded those of 1863, by over 40,000 head. This will tell materially upon the future supply of full-grown stock, especially in 1867-8 when these calves, if raised, would appear as beef cattle, working oxen, and milk cows—40,000 being nearly one-sixth of the total number of beef cattle received during a whole year.—Sheep and Lambs have also been sent to market more largely than in previous years, but the increase is about in the ratio of the increased product of sheep throughout the country.—Live Hogs.—The receipts for 1864 fell off to less than two-thirds those of each of the two preceding years—due partly to the lack of corn to fatten them, and partly to the resumption of pork-packing in Western cities, especially along the Ohio river where the incursions of the enemy in 1861-2-3, materially diminished this branch of business.

	Bees.	Cows.	Veals.	Sheep.	Swine.	All Kinds.
1864.	5,136	146	1,469	14,961	12,636	34,848
1863.	5,062	129	698	10,044	21,092	37,017
1862.	4,532	101	552	9,140	21,120	35,492



Containing a great variety of items, including many good hints and suggestions which we throw into small type and condensed form, for want of space elsewhere.

A "Wisconsin Sorghum Convention" is to be held in Madison, Feb. 7, at 10 A. M.

Michigan Agricultural College.

The announcement of this College is given in our advertising columns. This is the oldest institution of the kind in the country, has an excellent corps of professors, and ample means of instruction. To Western students it offers opportunities for acquiring a scientific and practical education, which they should not allow to pass unheeded. As compensated manual labor is a feature in this college, a student is able to complete his course with comparatively little expense.

Agricultural Colleges.—"Sophomore,"

Louisville, Ky., asks how these differ from other colleges and what are the principal studies taught in them. The course of instruction in Agricultural colleges is arranged with special reference to the wants of the farming population, and will be more or less extensive, according to the views prevailing in the community where the college is situated. Chemistry, animal and vegetable physiology, and such other sciences as have a relation to agriculture, are thoroughly taught, while the languages and the purely literary studies receive less attention or are altogether omitted. The only Agricultural colleges yet in operation, as far as we know, are that of Pennsylvania, advertised in the January *Agriculturist*, and that of Michigan, advertised in the present paper. There is also one in Maryland, but, judging from its catalogue, its course does not essentially differ from that of other colleges.

What Constitutes a Good Compost

Besides Stable Manure?—H. M. C., Middlesex Co., Conn. A compost is a manure from a mixture with the excrements of other ingredients than the litter bedding of animals. If the dung and urine of animals is the basis of a compost, it will, of necessity almost, be mixed with the litter and the waste of the fodder, etc. To this may be added three or four times as much dry swamp muck or peat broken down quite fine, parings of roadside turf or headlands, or any other vegetable substances, as sawdust, chip dirt, etc. A smaller quantity of good soil does very well, and even sand is often employed as an absorbent of liquid manure, and as an ingredient of the compost. Bones pounded pretty fine, gypsum (plaster), leached ashes, leather scraps, bone or horn turnings, woolen waste, hen manure, house slops, chamber lye, brine, etc., are all valuable additions, and make the thorough working over of the heap, and a corresponding increase of more inert substances desirable. Lime or unbleached ashes are not suitable to mix with animal manures, but may be previously mixed with the muck to lie awhile before adding it to the manure compost, etc.

Editorial Quarrels—True Ambition.

The long time readers of the *Agriculturist* will bear witness that we very seldom have any disputes with our contemporaries. We confess to an ambition, in common with others, to have our journal occupy the highest rank, but we scorn to seek to stand uppermost, by pulling others down below our own standard. That is a low ambition which leads one to carp at and pick flaws in his neighbors, in order to show off by contrast his own superior merits. If any one sees the slightest leaning in that direction in this journal, he will do us a great favor by pointing it out. The true way to pre-eminence is through superior energy, enterprise, and intrinsic merit. We repeat then, that we will not, and can not stoop to fault finding, to prying into the concerns of our contemporaries, and as a rule, only refer to them and their doings when some error of statement or opinion is likely to lead the public astray.

Stop That Falsehood.—We notice that a few jealous journals, in the spirit referred to above, have industriously circulated a falsehood in regard to this paper, which we have so far passed by as unworthy of notice; but as it is kept up, and concerns the integrity of the Publisher, we notice it briefly now. It is asserted that "last winter, when the price of paper rose, this journal was reduced to 'half size.'"—Another says "greatly reduced;" that the "half sheet was advertised at full rates;" and, increasing in the boldness of the statement, it is next asserted that "the half"—"the reduced" sheet—is offered at an advanced price. The truth is, no reduction was made "last winter," nor until September, and then but a slight one, in three numbers, and it

was then stated that the advertising space would be lessened, and extra efforts be made to condense the matter, so as to give about the usual amount of information. So little was the contraction, that only two readers complained of it, and one of these said he did not notice it until informed of it through one of our jealous contemporaries. The whole reduction of size during the entire year amounted to just three-fourths of one number. **SECOND:** When the small advance in price was made, it was distinctly stated that it was done in order "to be able to maintain the full size of the paper, and keep up its progressive character," and this size was restored before the advanced price took effect, and before any of our jealous friends uttered their slurs—or to be plain, their falsehoods. Until September, and since November, the paper has been as large as it ever was. We have no idea of making it smaller, and think it is improving in intrinsic value with each number. We have no hopes that the villifiers will retract their false statements, but we shall not quarrel with them, nor, if they behave civilly, point out their numerous deficiencies, the kind of advertisements they admit, to meet expenses, etc. One of them would better let others alone, and attend to his own business, so as not to stop his paper again when the subscription money is all in for a year ahead, and also settle up his unpaid patent operations, so as to die in peace.—If our readers are satisfied, it is enough for us. If they are not, they will of course go where they are better treated, and they ought to. We shall not complain, and scold our contemporaries for being superior, but rather praise them for it. Fortunately for us, our readers seem to be more than satisfied, which they manifest by bringing along many others—for which we thank them.

Ashes on Potatoes.—Hard wood ashes are one of the most valuable kinds of manure, especially adapted to potatoes, which nowadays are so sensitive to decaying manures. Chester Belding, of Orange Co., N. Y., writes that he applied "unleached ashes to the potato hills after first and second hoeings, at the rate altogether of about 15 barrels per acre. Two rows through the center which were not ashed, yielded at the rate of 197½ bushels per acre, while the others produced at the rate of 280 bushels per acre. There was no perceptible difference between rows ashed once and those ashed twice. Will ashes continue to be beneficial if applied? and how many years will one application be beneficial? A dressing of ashes will show its good effects several years on grass, grain, etc., and marked good effects will be noticed from liberal applications each year on the same land—but this is usually not an economical practice.

Farm Implements Cheaper Now Than Three Years Ago.

The manufacturers of the Buckeye Mower have prepared a table showing that their \$175 machine costs the farmer less now than in 1861, when a similar mower was sold for \$100. Taking from the November *Agriculturist* of 1861 and 1864, the New York prices of farm produce, they reckon that it required to buy the mower in

	Hay.	Wheat.	Corn.	Butter.	Cheese.	Wool.
1861 (\$100)	14,300	77 bush.	152 bush.	625 lbs.	1667 lbs.	223 lbs.
1864 (\$175)	11,000	69 bush.	92 bush.	350 lbs.	800 lbs.	175 lbs.

Similar figures apply to other produce and other implements, as well as to relative prices in other places.—They apply still more forcibly to our own subscription rates. While improvements have been made, and printing paper costs nearly three times as much, the rates are raised but one quarter to clubs, and one half to single subscribers, owing mainly to increased circulation. Thus a single subscription, cost (at N. Y. prices) in

	Hay.	Wheat.	Corn.	Butter.	Cheese.	Wool.
1861 (\$1.00)	143 lbs.	25 quarts	48 quarts	6 lbs.	16 lbs.	2¼ lbs.
1864 (\$1.50)	94 lbs.	18 quarts	25 quarts	3 lbs.	7 lbs.	1¼ lbs.

Barley on Light, Gravelly Soil.

"Subscriber." Barley delights in a gravelly loam, not very light, however. Sow as early as the soil can be worked, on ground manured last year for some hoed crop, or on a sod turned under last fall. The crop will not bear heating manure, but on land in poor heart, such applications as seaweed or muck compost, marl, leached ashes, gypsum, or lime, are useful. Barley is liable to smut and rust, but less so than most varieties of wheat.

Apples for Hogs.

Daniel Emerson, of Summit Co., Ohio, writes to the *American Agriculturist*: "In my youth, my grandfather, one autumn weighed four shoats and put them up to fat. I gathered sweet apples and fed to them. At killing time the hogs were again weighed and were found to have gained two pounds per day each. They were fattened only on apples, and the pork was very nice, sweet, and sufficiently firm. This year I kept my pigs penned, and during the summer daily gave them weeds from the garden. From the first of August for two months they had nothing but sweet and grafted sour apples, and since then, apples and corn.

The largest came to the knife before the first of December, very fat, and made most beautiful and sweet pork. A farmer in a neighboring town pronounces an acre of even indifferent orchard to be equal in value for hogs to an acre of the best corn, year by year." Why not plant sweet apple orchards for hogs and for cows also?

Hogs Poisoned by Salt.—"U," Westchester Co., N. Y., says many hogs have been lost in that County, through having too much salt fed to them ignorantly, and asks a cure. Old brine is very poisonous to swine. Salt can hardly be called poisonous unless it is taken in large quantities. In either case, we would give the hog a warm bath, clean nest, and a diet of raw roots, especially potatoes, mashed to a pomace. If any of our readers have been successful with any particular treatment, they will favor the inquirer and others by communicating it to the *American Agriculturist*.

Wintering Hogs on Turnips.—"D. D.," Lake Co., Ind., proposes wintering his hogs on turnips, and asks "Will it do?" We think so. Why not?

40 Acre Clay Farm—Ayrshire Bull,

etc.—C. A. Bruce, Fulton Co., Ill., who has such a farm, naturally good for fruit and wheat land, asks: "Will it pay to haul ashes which have been exposed to the action of the atmosphere for two or three years, a mile and a half, for the purpose of enriching or loosening the land?"—Yes. "Will subsoiling without underdraining be of any permanent value?"—Doubtful—certainly not if the land is wet.... "Can you inform me at what price I would be likely to obtain a good Alderney or Ayrshire bull calf, or a yearling, next spring?"—\$25 to \$75, according to quality.... "I have an interval of 2 years in my file of the *Agriculturist*, at what price can I obtain the volumes for 1858 and 1859?" Sent by mail, bound for \$2.44 each, unbound, \$1.74 each. He adds, "The December and January Nos. of the *Agriculturist* are splendid, and I wish I could send you a hundred subscribers."

A Chicken House for the Prairies.

Mrs. R. J. Trine, writes to the *American Agriculturist*: "A very good, but cheap chicken house can be made thus: Build a rail pen, leaving an opening at one corner for access; and cover, and stop the cracks with prairie hay or straw. With such a henry, and with plenty of fresh meat, vegetables, grain, fresh water, gravel, etc., hens can be induced to lay all through the winter."

How to Break Steers.

In answer to J. W. Brown, of Cecil Co., Md., and others: Steers have by no means so nervous a nature as horses. They will sooner yield to force, and accommodate themselves to what appears to them unavoidable necessity. So they do not need so much careful reasoning with, so to speak. It is best to begin with them as calves, and let the boys play with them, and drive them tied or yoked together, taking care that they are not abused. When a pair of old steers are to be put together and broken to the yoke, or a pair of bulls, as not unfrequently happens, it is usually best to yoke them, and tie their tails together, in an extemporized stall, in a well fenced yard, and then turn them loose in the yard, which should not be large enough for them to run in and get under much headway. If the tails are not tied together, they will frequently turn the yoke, which is a very bad habit. After half a day's association, the lesson of "ye up!" and "whoa," may be inculcated—and when well learned—probably the next day, "haw" and "gee." The daily lesson should be given after they have stood yoked awhile. They should not be taken from the yard until they have become used to the yoke, and are no longer wild and scarey, as they are apt to be at first. Each day all previous lessons should be repeated. Put them before an ox sled or a pair of cart wheels at first, rather than to a stone boat, as they are apt to step on the chain, and that frightens them. All treatment should be firm but mild, and no superfluous words should be employed.

Quinces in Clay Soil.

C. Holland, Peoria Co., Ill. A rich, deep loam is to be preferred, but the trees will doubtless do well on the clay, if it is ameliorated by draining, deep working, and by the use of coarse manure. The addition of salt would be of doubtful utility. Experiment with it in moderate quantities.

Strawberry Plants for Subscribers.

Explanation.—To the numerous inquiries from new subscribers, we answer generally: The "Agriculturist Strawberry" was offered free, and sent to all subscribers for 1864, who applied for it according to the rules. This done, the new growth of autumn was sold to Rev. J. Knox, of Pittsburg, Pa., who, being by common consent the "Strawberry King" of the country, was anxious to secure this Queen of the strawberries, and

have the plants for sale. All orders sent to us are turned over to him. The plants remain in our grounds, whence they will be taken in spring, as called for by customers. He will, doubtless, meet with ready sale for all the plants he will have, as, by universal consent, this is the most remarkable variety of this fruit that has yet been produced. In the sale, we reserved a limited number for distribution among our readers the coming spring, a large portion of which have already been called for by new subscribers and others. When an application comes along with a subscription letter, so as to be entered down with it, and accompanied with five cents for postage and packing, the name is recorded. The plants will be sent in order of application, as soon as spring weather admits, until the reserved supply is entirely exhausted. Rev. J. Knox, box 155, Pittsburg, Pa., will respond by circular, or otherwise, to all inquiries in regard to purchasing plants.

Spring Budding the Peach.—J. B. Richardson, Ill., asks if buds can be cut in winter and successfully preserved and inserted in spring. Spring budding is sometimes practised, but we never knew it to be done with the peach. The buds are apt to remain until late before they start, and the wood does not become sufficiently ripened to endure the following winter. If any have experience, we shall be glad to hear of it.

Black Naples Currant.—J. Grable, Buchanan Co., Mo., wishes to know if this variety is worth cultivation. It depends upon whether one likes black currants. While some consider them a valuable fruit, others (including the writer), regard them as disagreeable and worthless. Naples is the best of the black.

Crop for a Peach Orchard.—N. A. Halbert, Erie Co., N. Y. Cultivators differ as to the propriety of taking any crop from the land except peaches. In New Jersey it is the general custom to grow buckwheat in the peach orchard, to keep down weeds. Plowing it in before it matures would increase the fertility of the soil.

Eastwood on the Cranberry.—This is probably the most complete work on the subject, and the Department of Agriculture seem to think so, as two of the engravings are taken from the work to illustrate its report for 1863. This, considering that the work is copyrighted, is rather cool. There is a new edition now in press, and it will be ready in a few days. Price, 75 cts.

Maggots in Beans.—J. S. Brower, Monmouth Co., N. J. It is difficult to say why these insects should suddenly appear. It is not probable that anything used upon the soil has anything to do with it. We know of no remedy, except to destroy all infested seed before the grubs turn into beetles, and procure seed from localities where the insect is not known.

Rhubarb.—S. H. Mitchell, Perth Co., C. W., asks what kind of Rhubarb to cultivate for medicinal purposes. We doubt if it is worth while to cultivate any sort for its root. In England, a cut-leaved species (*Rheum palmatum*), is grown, but it gives a very indifferent product, and one which has but little value, except to use in adulterating the powder of Asiatic Rhubarb.

Shade Trees.—It is a great mistake to choose large trees from the forest. Take, instead, small trees, and those from open fields. By careful treatment, they will soon overtop the tall spindling trees from the woods, and will be handsomer and better specimens. It would be better still, for them to have a year or two of nursery culture before being set in their final position.

Hon. Marshall P. Wilder.—All who are interested in horticulture will be glad to know that this distinguished pomologist still retains his interest in rural affairs. In renewing his subscription to the *Agriculturist*, he says: "My health is slowly, but my physician says surely, improving. I hope that it may prove so, and that my mission is not yet ended."

Tritoma Uvaria.—This is a very pretty plant, and the Prairie Farmer, of January 7th, has a very pretty picture of it, but it would have been pretty in the Farmer to have said that it was taken from the *Agriculturist* of November last. Mr. Farmer, it isn't pretty for you to gobble up our original pictures, and never say thank you.

Locality for Grape Culture.—A subscriber, in Buffalo, sends us a detailed description of a certain locality, and then asks us if grapes grown there will yield a juice which will make wine without the addition of sugar. It is impossible for anyone to answer this, and many other similar questions, in any other than

the most general terms. The Delaware and the Catawba, where they will ripen, will make wine without sugar. The Concord varies in value as a wine grape, the sugar seeming to increase the further West it is grown.

Hedges in New Jersey.—W. T., Monmouth Co. We think that the Honey Locust will do best in your locality. The Osage Orange would be hardy, but it is almost impossible to get either seed or plants.

New Vegetables.—From inquiries among seedsmen, there seems to be an unusually small number of new varieties of vegetables to be brought out the coming spring. Of course there is the usual assortment of new Peas—those we have in numbers every year—but the only novelties we have noticed, thus far, are Evergreen Pole Beans, said to keep well in the pod for use in winter, and the Valencia Cluster Tomato, which is said to be large, smooth, red, and very fine.

Don't Send Money to Thomas Boulton & Co. (an illegal lottery operation)—to George C. Kenneth, (he promises to lie for \$10, and no doubt will)—to S. B. Goodrich (another lottery swindle)—to C. W. White (he says he has made \$50,000 by selling recipes, and wants to sell more—for almost every thing, from yellow butter to white brass and gold coins)—to James Conway (he has a package in his care, for which he wants 48 cts.)—to Hammett & Co., Seymour & Co., Brown, Sherman & Co., (professed lottery dealers)—to J. T. Small (Union Relief Association, with lots of prizes)—to Charles A. Herbert (another \$10 liar)—nor to any other humbugging sharpers who flood the mails with their circulars, promising to give more than a hundred cents worth for a dollar. They can't afford to do it, and they will not do it: let no *Agriculturist* reader be caught with such chaff.

Look Out for the Generous Pedler.

A subscriber, in Western New-York, gives an account of how some of his neighbors were "taken in and done for," by a smart chap, who is yet on his travels. He drove into the village, dressed in burlesque Yankee style, and commenced selling worthless jewelry. To each purchaser he returned the money, and allowed them also to keep the article bought. Presently he sold a \$5 green-back (genuine) for \$4, then \$1 for 90 cents, and 50 cents for 25, after which he scattered a lot of small change among the crowd, and drove on slowly. People thought him crazy, and a throng followed to watch his operations. Presently he stopped again, and began selling gilt lockets for \$5 each, which were rapidly taken as before. When about forty were thus disposed of, he said: "Gentlemen, I have sold you those goods at my price; I am a licensed pedler; and now, if I give you your money back, you will think me a lunatic; I wish you all success in your ordinary vocations." And away he drove, leaving his dupes in doubt whether to rave at him, or laugh at each other. The lockets were worth, perhaps, 10 cents each.

How to Cook Kale.—A Simple Way.

—Take the leaves and the head or heart (which is the most tender part) wash all sand or dust carefully off, by using fresh water, three or four times. Then put in boiling water, with a handful of salt to about a palful of kale, till it is cooked perfectly tender, place in a colander, press the water out, and put into a stewing pan, with a piece of butter, gravy, or fat, according to the quantity cooked, or richness required: let simmer for ten minutes, and then serve for dinner.

Hard Soap.—If any one has a process by which good hard soap can be easily and economically made in the family, he will confer a favor on many others by communicating it, with full particulars.

Catalogues Received.—The nurserymen and seedsmen seem to be unusually late with their catalogues this season. James Vick, of Rochester, N. Y., sends his "Illustrated Catalogue and Floral Guide," which is a work of more importance than seed catalogues usually are. It has two colored and numerous uncolored engravings, with descriptions of the best varieties of flowers and vegetables, and directions for their culture. Peter Henderson, of Jersey City, N. J., issues his 17th annual catalogue of plants, which includes all the standard varieties and many novelties. Mr. H. has recently succeeded Mr. Davidson, in the firm of Fleming & Davidson, and, as one of the firm of Henderson & Fleming, carries on the business of seedsmen, in addition to that of florist. F. Trowbridge, Milford, Conn., sends a catalogue of trees, and a treatise on the culture of the cranberry. F. K. Phoenix, of Bloomington, Ill., is out with his catalogue of general nursery stock. He is very much in earnest about planting trees on the prairies. He says: "Buy or not, but plant! O, Reader! at least seeds, cuttings, or trees from the forest! They grow while you sleep!" The old and well-known house of

J. M. Thorburn & Co., New-York, have published their catalogue of vegetable and agricultural seeds. A glance at it shows that prices average about fifty per cent. higher than in former years, but this was to be expected. Don't buy poor and old seeds at any price.

"Wet Days at Edgewood: WITH OLD FARMERS, OLD GARDENERS, AND OLD PASTORALS," is the title of a work by Ike Marvel (Donald G. Mitchell) just issued by Scribner. Those who have read the author's pleasant account of his "Farm of Edgewood," will have a desire to possess these gleanings from his rainy-day readings. The work gives sketches of the writers on rural affairs, from Hesiod and Homer down to Cobbett and Charles Lamb, and all told in the charming style so characteristic of the author.

"Lessons for Every Sunday in the Year."—A series of 208 lessons (52 in each of four books), taken from the whole of the Old and New Testaments, all arranged in order of time, with a brief, but comprehensive history of the entire Bible, and accompanied by appropriate and suggestive questions and instructive rules, references, etc.; adapted to scholars of all ages. No. 1, on the Four Gospels and Acts; No. 2, from the Birth of Christ to end of Revelations, mainly on the second half of the New Testament; No. 3, the Period from Adam to Elijah; and No. 4, from Elijah to Christ. The value of these books is indicated by the fact that though but recently published considerably over 100,000 copies have been asked for. Nos. 1, 2, and 3, are now ready. Price of each, 15 cts., \$1.50 per dozen, or \$12 per 100. If sent by mail, 4c. per copy extra for postage, or 3c. each in packages of 10 or more. No. 4 is not yet in print. Superintendents, teachers and parents are invited to examine the peculiar plan and merits of this series. Nos. 1, 2 and 3 will be sent post-paid for 50 cents.

Woodlawn Cemetery is the latest born of these rural repositories for the dead. It is upon the line of the Harlem Railroad, seven miles beyond Harlem River, and can be reached in a half hour from the depot in Twenty-sixth-street by the cars. It is designed to accommodate New-York City and the numerous villages along the lines of the Harlem and New Haven Railroad. Facilities are furnished to attend funerals by steam cars, which are found to be very much more comfortable, as well as more economical, than the ordinary mode. We learn that the association have already expended some fifty thousand dollars in improvements, besides the purchase price of the land, of which they have over three hundred acres, with the permission to hold five hundred. We are specially interested in this new enterprise in our suburbs, as it is under the supervision of one of our editorial corps, Rev. W. Clift, recently of Stonington, who has been for many years associated with the *Agriculturist*. Our readers will profit by his removal to this new field for the exercise of his rural tastes.

Works on Flax and Hop Culture.

—The offer of premiums for essays upon the culture of flax and hops has been responded to by a good number of writers, and the essays are now being read. We have no doubt that we shall be able to offer a manual on each of these subjects that will be of great practical value.

Sorghum Culture and Profit.

—Many reports come to us of success with this important crop. S. P. Jones, of Hamilton Co., Ohio, cultivating like corn and using a good dressing of stable manure, obtained of good thick molasses at the rate of 925 gallons to the acre, which at the retail price there (1.50 per gallon), would be worth \$337.50. Another subscriber has made 5,000 or 6,000 gallons, much of it from cane of excellent quality, but some from green, frosted and mouldy lots, and all purified without the addition of "chemicals." Another reports 14,000 gallons made in the town of N. Haven, Ct. 5,000 gallons were made in Meriden, Conn., 3,000 in Berlin, 1,000 in Southington, and large quantities in New Britain, and in other towns in the same State.

Husk-Tearing Machine Wanted.

Several subscribers inquire if there is any good machine for tearing corn husks to prepare them for bed mattresses, etc. We can not answer—perhaps others can, and give cost, etc. Mr. Thos. E. Pearsall, of Brooklyn, L. I., speaks of a contrivance got up by himself, and unpatented, which is somewhat similar to a threshing-machine, but it does not tear them quite fine enough for beds.

To Keep Rats from Harness.

—E. Snow, Poweshick Co., Iowa, asks: "Will some reader of the *American Agriculturist* tell me what to put into harness oil that will prevent rats and mice gnawing the harness?" Won't it do for the Editor to suggest the admixture of a moderate quantity of good strong snuff? We shall be glad to hear from our readers also.

Caked Bags—Garget.—Many of the applications which are used effectively to relieve the acute diseases of men and animals savor strongly of quackery: yet they are so efficient that the recipes are treasured as of great value. Here is one such: "Take chamber lye, hot as hand can bear, and bathe the parts. Then take a large, smooth stone, wrap it in flannel, and rub firmly all over for ten minutes. Then rub well with hot lard and molasses. Do this every hour. Cows with very tender bags give every evidence of enjoying the operation." We would substitute brine for urine, and gentle rubbing and kneading with the hand for the stone, and effect the same results. Bathing in warm arnica water—either the aqueous extract or the tincture dissolved in water—we have found very efficacious.

Kicking Cows.—J. P. W., Tipton Co., Ind., writes: "A leather strap buckled tightly around the loins of the 'kicking cow' succeeded admirably with me, and I recommend it as simple and easily applied."

Flax Shives—Lime Waste of Paper Mills and Gas Works.—"Enquirer," Livingston Co., N. Y., asks the value of these articles. We advise this experiment. Takethree-fourths or four-fifths flax shives, and one-fourth or one-fifth lime of either sort, or both mixed, and lay up a compost heap, which open and work over after a few weeks, working in more shives, according to your judgment. Gas lime needs thorough pulverization, and months of exposure to the air before it will do to bring it in close contact with growing crops. And we presume bleachers' waste needs similar exposure.

Broom Corn Brush.—C. G. Eggleston, Peoria Co., Ill., asks about the price and demand for this article in our market. There is a brisk demand for a good article. It should be bright, light colored, long and put up in compact, strongly wired bales. The prices quoted for medium to prime are \$16 to \$18 per cwt.

The Cuzco Potato.—This one of Goodrich's seedlings seems to have given large returns in many hands. E. C. Allen, of New Haven Co., Conn., reports 11 bushels from 4 quarts, cut to single eyes as nearly as possible—equal to an increase of 80 from 1.... J. Tracy, of Grant Co., Wis., received by mail 4 potatoes of this variety, which cut up into one-eye pieces, yielded 400 potatoes averaging larger than the original four, and measuring 3 bushels. This is 100 for 1.

Potatoes—Large or Small Seed.—W. H. Cook, Suffolk Co., N. Y., reports 260 bushels of large potatoes to the acre, raised from small seed.

Bulkley's Seedling Potato.—J. T. Mapes, Orange Co., N. Y. We have not heard of this variety for the past two years. Perhaps some of our readers can tell about it.—We knew it by no other name.

Injured Peach Trees.—G. R., Berrien Co., Mich., has bought a place, upon which is an orchard of peaches, the trees in which have been injured by cattle, and asks what he shall do with them. The treatment will depend upon the age of the trees, and the extent to which they are injured. If they are young and vigorous, and shoots can be obtained from above the junction of the bud with the stock, they may be headed back, and one or three shoots allowed to grow to renew the head. It is no objection that the head is formed close to the ground. The work may be done at the time the buds swell, as at that time the dead and living portions are best distinguished.

Exposure for Pear Trees.—"Young Orchard," Sandy Hook, Conn. Any other than a full Southern or Eastern exposure is to be preferred, it being generally admitted that one source of disease in pear trees is the sun's action upon the naked and frozen limbs.

A Productive Plot of Ground.—We receive statements of the great returns from small parcels of ground, too numerous for publication, but they are all interesting as showing how much good management, with high manuring, will produce from a small area, and teach a lesson that may be profitably considered by farmers as well as gardeners. One of our correspondents forcibly states that "retail manuring and wholesale cropping don't pay." A subscriber, in Westchester Co., obtained from a plot of ground, 12x24, tomatoes which sold for \$14.50, at which rate an acre would yield over \$2,000. In statements of this kind, we seldom have the cost of production given, nor any intimation whether the crop was sold at wholesale or retail prices.

Horse-Power Saws.—James A. Mitchell, Park Co., Ind., inquires for a horse-power saw, for cross-

cut work, which does not require to have the logs drawn to and moved up to the saw, but which may be drawn to the logs and will cut them as they lie. It may be there are such saws. If so, they should be advertised. At any rate, here is an opportunity for inventors.

A Machine for grinding or tearing up clods, bogs and other such like things, used to increase and improve the manure product of the farm, is called for by J. Hodges. We know of none such in this country. It is not unusual to make the compost heaps so large and flat that they may be plowed and harrowed. The advantage to be gained by having these materials made fine by one operation, and at once, as in the way suggested, is a gain of time only; for in the course of 6 to 12 months the use of lime, or fermenting manure, or often by the weather alone, tough bogs and sods may be made fine and soft.

A "Manufacturing Machine."—That is, a machine which makes things by hand; for manufacturing means simply making by hand. True, we use these and similar words very carelessly, but really a manufactory is a factory where hand labor is chiefly employed. The above curious expression we notice used in a mechanical journal of wide circulation, and similar expressions are common, but none the less incorrect.

Burning Lime.—"D. B." asks for information in regard to the most economical way he can burn lime with wood. Practical hints on this subject will doubtless be acceptable to many.

Ashes for Asparagus.—John Millen, of Highland Co., Ohio, covers his beds with 3 or 4 inches of leached ashes, and finds the crop better than with any other manure—weeds are completely suppressed.

Harness Buckles and Trimmings.—A subscriber asks how harness trimmings which have lost their plating may have their beauty easily renewed.

Is it a False Notion?—An Old Farmer, of Brady Co., Pa., says he plants his corn upon land plowed, the last time, East and West (probably not harrowed), and holds the opinion that fields thus planted come forward earlier and yield better than those planted on furrows running North and South. It may be that soil plowed thus receives more warmth from the sun.

Keeping Cions.—J. Woodward, Wayne Co., Pa., says that cions cut "in the old of the moon in February," put in a large glass bottle, corked tight, and placed in the cellar, will keep better than in any other way. Without any reference to the age of the moon, a bottle may often be the most convenient vessel in which to put grafts, to keep them from drying, when it is not practicable to bury them. When sent by mail, cions should be wrapped in oiled paper or cloth, and if packed with a little damp moss there will be less danger of their drying. If to go great distances, pack in sand in a tin case, which is to be soldered up tight. Cions put up in this way usually come from Europe in good condition.

Strawberries for New Jersey.—The Fruit Growers' Association, of West Jersey, held an exhibition of Strawberries, in June last, at Morristown, at which the value of the different varieties for cultivation was discussed. Mr. Clayton Lippincott, one of the officers of the society, sends the following account of the vote taken to test the estimation in which the varieties were held by the members: Russell's Prolific, 11; French's Seedling, 15; Downer's Prolific, 15; Wilson's Albany, 4; Cutter's Seedling, 14; Lady Finger, 7; Hovey, 7; Leed's Prolific, 6. The vote was taken by each member selecting the five he considered best. There being a tie upon Hovey and Lady Finger, another vote was taken on these two, which resulted in 17 for Hovey and 9 for the other. Russell's Prolific, French's Seedling, Downer's Prolific, Cutter's Seedling and Hovey's Seedling are considered by the West Jersey Association as the five best market varieties for cultivation near Morristown.

What are Remontant Roses.—J. L. Remontant is a name given to those roses which bloom more than once in a season. They differ from the perpetuals in having several distinct periods of flowering.

China Grass.—A. J. Aldrich, Worcester Co., Mass. The fibre is evidently that of China Grass, and is from a nettle-like plant, *Boehmeria nivea*. It is largely cultivated in India, but we are not aware of any trials here. The fibre is from the tough bark of the stem.

Strawberry Propagation.—T. R. Payne, of Scott Co., Iowa, asks us if it is true that plants from lateral runners will produce fruit inferior to those from the main runners. Without having tested this point by growing beds propagated in both ways, side by side,

we should, on general principles, say, that one runner was as good as another, if as strong and healthy.

Bulbs.—W. H. Orr asks what he shall do with a lot of Hyacinths, etc., which were received too late to plant out of doors. Pot them and keep them in a dark and moderately warm place, until the ground opens, and then turn them out without disturbing their roots.

Pansies, etc.—Francis W. B. Robbins, Suffolk Co., N. Y., asks if Pansies, Forget-me-nots, and Violets, are the same plants. Pansy is *Viola tricolor*, and the cultivated blue and fragrant Violet is *Viola odorata*. They are both violets, but different species. Forget-me-nots is *Myosotis palustris*, of an entirely different family.

Pea for a Name.—E. C. Clark, Harford Co., Md. The pea called "Coffee" is the old Chick-pea, *Cicera rietinum*. Though considered less digestible than ordinary peas, there is nothing deleterious about it, and it is largely used as food in various parts of the world. It is said to be a good substitute for coffee, and as such the seed has been sold at a high price. We have no experience with it as a "coffee" plant.

Massachusetts Coffee.—J. L. has seen a notice in a Worcester paper, that some one in that vicinity had raised four pounds of good coffee, and asks us how to cultivate coffee. The "coffee" in question cannot be the true article, as in our climate this can only be raised under glass. It is impossible to guess which one of the many substitutes for coffee may have been referred to.

Kyanizing.—"M. P.," Concord, N. H., writes to the *American Agriculturist*: "My method of 'Kyanizing,' may be more practicable for farmers or gardeners who wish to prepare a few stakes, than that given in the *Agriculturist* for October. I dissolve blue vitriol in water, at the rate of one pound to five gallons, in an iron kettle. Then take well seasoned stakes and stand them in the liquid for four or five days, a little deeper than they are to stand in the ground, and they will come out well impregnated. Sometimes, when I have wished to prepare long poles, I have cut the trees when the leaves were on, and put them without much trimming, immediately into the vitriolized water. In a few hours the vitriol will have colored the wood and leaves to the top of a twenty-foot pole. The saturation of the wood will of course become more perfect if it remains in the solution two or three days. The poles should then be allowed to dry in the air before setting them into the ground."

Re-sharpening Files.—V. V. Deys, Jackson Co., Ill. The best way is to take the old files to a file-cutter, and exchange them for new ones, or let him make new files of them. One will thus realize all that the worn files are worth. There are a good many file-cutters in the country, but they are found mainly in large towns, and we think, do not put themselves sufficiently in business communication with their neighbors who use files. There is no acid or "solution" in which files may be dipped and re-sharpened. If a file is made very clean with ley or soap, and then dipped into nitric acid, for a few seconds, it will appear to be sharper, but a little use very soon will wear it down smoother than before.

Ice Water Cistern.—"J. C. B.," Fond du Lac, Wis., writes: "While in Iowa, last summer, I drank cold cistern water which was very acceptable in those hot days. Bye the bye, almost all, or at least a great many use cistern water—one hundred feet not being an unusual depth required for wells. The cistern spoken of was filled with snow last winter, and was kept closed; the family could draw ice water at any time."

Frost in Pipes and Pumps may be removed by conducting hot water upon it, through a rubber tube, such as is used for gas tubing now-a-days. The best size is that with about 3-16 bore, and 1/2 inch walls. Put a funnel in one end, and a piece of goose quill in the other, (to prevent the pipe closing), then bind this end to a stiff, but flexible wire, or piece of ratan, or willow, long enough to reach the ice. Pour in boiling water, keeping the tube close to the ice, which will thaw most rapidly. Two pieces of rubber tube may be joined by using a goose quill, or short piece of glass or tin tube, to unite them, slipping the ends close together upon it.

Keeping Iron Vessels from Rusting.—"Subscriber" wishes to know how culinary vessels may be kept from rusting on the inside. It has been recommended to give them a thin film of beeswax. Heat the vessel and rub on enough wax to fill the pores.

Boiling Potatoes.—Where does the water go? Potatoes contain from 70 to 80 per cent of water. We boil them in water, and this all disappears. Does water extract water? No, but the starch grains (which

any one can see by rubbing a bit of raw potato on glass, and letting it dry) absorb it, just as when starch or flour paste is boiled, only the starch in the potato is in cells, which, with the albumen also, prevent it forming a jelly. When all the 75 per cent of water in the potato is absorbed they boil dry; if some of the cells burst they are "mealy;" but when all of the water is not absorbed, and the cells do not burst, they are "waxy." Potatoes are more digestible when boiled, steamed or roasted than when fried, which makes the surface tough, and slowly permeable by water or the fluids effecting digestion.

Candy from Sorghum.—A subscriber asks how to make "Taffy" candy from Sorghum syrup. The method with New Orleans molasses is, to boil 1 pint of molasses and $\frac{1}{2}$ lb. of butter together until it hardens when cold. Those who have experimented with sorghum molasses can say if any different way is necessary.

Old Hoop Skirts.—C. T. Starr, Chester Co., Pa., suggests that old hoop skirts may be used to make trellises for climbing and other plants, in the same manner that rattan is often used. That will dispose of a few, but what shall be done with the rest?

Hang Up the Brooms and Tools.—"W." says: "Why do 99 in every 100 housekeepers set their brooms in the corner brush down? Miserably slack practice! Put a half-cent screw eye in the handle of each broom, and suspend it by a nail; and then tell the man to serve every rake, hoe, etc., in the same way."

Water Pipes.—W. B. Waldo, Duchess Co., N. Y., does not wish to use lead pipe through which to pump water from his well. Iron pipe, "galvanized," as it is called, that is, coated inside and out with zinc, is probably the best pipe you can use. There is a kind of wooden tube, bored out of 3x3 or 4x4 joists which might do if coated inside and out with paint or cement.

Clean Bottles and Vials.—A correspondent writes to the *Agriculturist*: No vial or bottle should ever be put aside, without cleansing it, ready for use, and fitting it with a cork to keep out dust. Few houses contain any convenience for draining bottles, etc. Every one should have a board say 8 inches wide, and long enough to reach across the sink, containing holes bored 5 inches from centre to centre with a 1 5-8 inch bit, interspersed with smaller ones, varying in size, or with upright hard wood pins, 4 or 5 inches high, for vials.

Tin Tree Labels.—"A. M. W." says he uses them and likes them. The names must be scratched with an awl. The weather rusts the iron, laid bare by the scratch, and thus brings out the writing clearly. They will no doubt last several years, but the rust will finally spread, and make the inscription quite indistinct.

Peach Trees for Pea Brush.—D. Emerson, Summit Co., Ohio, says that he grows peach trees in his garden for furnishing pea brush. The same roots last for several years, and throw up a new crop of shoots each year. In localities where suitable brush can not be obtained, it may pay to raise it in this way. We once used a lot of overgrown nursery stocks for peas, and found them, as Mr. E. states, "handy and symmetrical."

Protection of Melon Vines Against Bugs.—E. B. Ester, of Essex Co., N. Y., states that last spring he employed Benzine, such as is used by painters instead of turpentine, dipping rags in it, and setting them, held in split sticks, near each hill of cucumbers, squashes, melons, etc. Before, the striped bugs or beetles (*Galeruca vitata*) were abundant, and doing great harm. Afterwards, they all disappeared.

Gas Tar for Wasps Nests.—A small quantity of gas tar poured into the nests after dark, is said to destroy the wasps before morning. A bit of turf is laid over the hole after pouring in the tar.

Maple Trees and Peach Trees Growing from Layers.—W. B. Waldo sends the following statement to the *American Agriculturist*: "Years ago I got maple trees for the front of my house. They were quite large and tall. I feared they would lean, on account of length and weight. My hired man requested the privilege of planting, and I consented. He set them so deep that the surface roots were a foot or two below the surface. Every limb was pruned off, except some little watery sprouts. The first year these leaved out. The second, again. So for seven consecutive years, I do not believe these trees added to their weight three pounds apiece. The eighth year they started and made limbs six or seven feet long. On examining below, I found the surface roots had started

very thrifflily. The trees grew rapidly, and are now large, healthy trees. I do not believe there is an original root about the trees, but that every one is a genuine layer. "I once planted a lot of peach pits, very carefully. Some in the garden were six inches under ground. On taking these up, I found roots protruding from the stem several inches above where they should be. On splitting them down through the pith, I found it dark yellow, rusty, and unhealthy in appearance. I rejected every one of these, for they were layers too, if stems striking root are so. A peach pit, stuck point foremost in the ground, throws a straight, smooth stem up, and its tap root downward. Lay the pit on its side, it forms a crook and plants badly, exposing in the short bend a convenient place for the worm to attack."

A Double Hot-Bed.—Mr. J. McAfee, Bristol Co., Mass., encloses his hot-bed in another frame. His outer frame is 6x6 feet, 2 $\frac{1}{2}$ feet high in front, and 3 $\frac{1}{2}$ feet at rear, with sash in the usual manner. About the middle of February he fills this to within 8 inches of the top of the front with manure and leaves. When the heat is up the manure is covered with rich loam, and another frame, about a foot shorter and narrower, is placed upon it. This inner frame is covered with sash, and has a space of about six inches all around between it and the outer one, which may be filled with manure, or left as an air chamber. Mr. M. finds that his seed bed, arranged in this way, is better protected from frost, requires less frequent watering, and that the plants are not so liable to be scorched by the sun.

Top Dressing.—A subscriber in Washington Co., O., expresses concisely a principle which farmers are very apt to overlook, viz.: "In autumn the ground takes up manure; in spring the air." Top-dressings of solid manure are of much greater value in autumn than in the spring. Fermenting manure ought really to be covered, at least lightly, with soil if we would obtain the full benefit of it. When top dressings with animal manure are desirable, the loss may to a great degree be prevented or compensated by employing an extemporaneous compost of manure and soil or muck. The kind of top-dressings which have an equal or superior effect in spring to fall, are, liquid manure and salts of various kinds which are readily dissolved and carried down into the soil, such as gypsum, nitre, soda, saltpetre, sulphate of ammonia, unleached ashes, etc.

Clover Sown with Oats.—C. L. Kinman, Morgan Co., Ill., asks if it will do to sow red clover with oats. We have never done it; but clover is sometimes sowed with other spring grains, being bushed in after harrowing in the grain, or even left on the surface for the next rain to cover. It may be sowed by itself in the spring, and do well on many soils, and we would not hesitate to sow with oats as above, if desirable. Any testimony on the subject will be acceptable.

Four-leaved Clover.—Mrs. M. L. Strohm sending specimens of leaves, writes that she plucked from a single clover plant 22 leaves of 4 or 5 leaflets each.

Red Sorrel.—N. P. Mix, Franklin Co., Ohio, imported some red sorrel in clover seed a few years since. Now it covers more or less a quarter of an acre, and as it is the only locality, in his neighborhood, of this pest of eastern farms he desires to extirpate it. Whether this can be done or not is very doubtful; but the best thing to do is to keep the patch in hoed crops, taking no grass or small grains from the ground for some years—nor removing the tops of potatoes or other roots in which the seeds might be concealed. This will confine it to the locality, and go a good way towards ridding the land of it.

Cranberries.—P. Birkenmayer. Cranberries, from a very wet bog, would probably be less likely to succeed on upland than those from a drier locality. We have heretofore expressed our doubts that cranberries can be grown upon ordinary soil with certainty and profit. Mr. G. N. Wright, of New London Co., Conn., states that from two square rods of good garden soil he gathered, in 1863, four bushels and six quarts of cranberries. Some of his plants were taken from upland and others from low ground. They increased rapidly and soon covered the ground. Last year drouth and worms prevented a good crop on his ground.

Treatment of the Orchard.—J. J. Richardson, Bay Co., Mich., revives the old question as to the cultivation of orchards. The general practice of good orchardists is to cultivate the ground, while the trees are young, with hoed and heavily manured crops, and when the trees become large to sow it to clover or grass, leaving a clean circle around each tree. In cultivating an orchard, every precaution should be used to prevent injury to the trees from whiffletrees or chains.

The Israella and Iona Grapes—An Explanation, and a Wrong Righted.

It would be strange indeed, if in an independent journal of the character of the *Agriculturist*—discussing as it does a great variety of topics, and its Editors receiving every year many thousands of communications—there should not sometimes occur an error of statement or opinion. It is a source of special gratification to us, that not half a dozen times in twice as many years, has there been any retraction needed. While seeking first the public good, we aim to be always just to individuals, and if through oversight, a wrong impression is conveyed to our readers, no pride of opinion or position will prevent a proper correction. We hold that a higher, nobler courage is indicated by a change from false opinions, or by the correction of one's own errors, than by a dogged persistence in them. With these views, we hasten, on understanding the facts, to offer the following explanation.

In the December *Agriculturist*, appeared a communication over the signature of H. P. Byram, the material point of which was, that Dr. Grant's new grape, the Israella, would not prove elsewhere so early as had been promised for it, or as it did at Iona Island, because, as Mr. Byram alleged, the vines were forced into two or three weeks earlier ripening by the use of glass in front, and protecting and heat-reflecting wooden screens at the back. In the January *Agriculturist*, both Dr. Grant, (in an advertisement), and his foreman, Mr. Bushnell, (in the reading columns), denied *in toto* Mr. Byram's statements and allegations. We had published Mr. Byram's communication in good faith, supposing him to be a man of truth, as he had for a long time stood in good repute as an editor, and among horticulturists generally. He professed to write only for the public good, and exhibited no appearance of being governed by malice or ill-will. The question of the value of these new candidates for public favor, the Iona and the Israella grapes, was a proper subject for discussion *pro* and *con*. When Mr. Byram's letter was received and passed to the printer, it did not occur to us that it contained statements which, taken in connection with what Dr. Grant had published elsewhere, implied want of integrity or honesty on his part. With his advertisements, catalogues, and other information now before us, Mr. Byram's letter appears in a very different light, and we are satisfied that its publication by us was wrong, and are glad to avail ourselves of this opportunity to make reparation, and to set Dr. Grant right before the public.

After the above positive denial of Mr. Byram's statements (last month,) we suspended judgment, and asked the public to do so, and we set about an inquiry into the facts. Mr. Byram adhered to his former statements, and referred us for proof to persons employed at Iona. We sought the evidence of these persons, with that of others, which is given below in a positive, verified form. We confess to surprise, mortification, and indignation, at the result of these inquiries, and at the strong evidence that Mr. Byram had previously threatened to injure Dr. Grant through his own influence with the press of the country. An attempt by any man to covertly use our columns for any such ends, is a fraud and imposition, upon the publisher and editors, and upon the readers. We leave Mr. Byram, in view of the testimony below, to settle the matter with his own conscience, and with Dr. Grant.

We should perhaps add, that Dr. Grant, while not excusing the motives of Mr. Byram, is yet charitable enough to explain that sashes and screens were used with a few Delaware vines for experimental purposes, but none with the Israellas, and none on any vines in the manner alleged by Mr. Byram.

PUBLISHED.
[Copy.]

WESTCHESTER Co., ss.—We, the undersigned, being duly sworn, do depose and say, that we were employed at Iona Island, through the growing season of 1864, and daily saw the management of the vines there; we have also read the letter of Mr. H. P. Byram, in the Dec. No. of the *American Agriculturist*, and declare all his statements in regard to the use of "glass and screens," for hastening the ripening of the Iona and Israella grapes, to be entirely false.

Subscribed and sworn to before me, this 13th day of Jan., 1865.
THOS. A. WHITNEY, Justice of the Peace.

[Copy.]

ALVAN BUSHNELL, Foreman,
JACOB HERVELEY, Carpenter,
PATRICK SAVAGE, Propagator,
WOLSEY WEYANT, Planter,
RALPH ISHAM, Trainer of Vines.
NEW YORK, Jan. 17th, 1865.
To whom it may concern:—I would state that I have read the communication of Mr. Byram, in the *Agriculturist* of December, and also the one signed "Peconic," in the Ohio Farmer. I have been at Iona Island from early Spring to late Autumn, and during the growing season almost weekly, from two to four days in the week, engaged in the critical study of the vines, making accurate drawings of them. I know that no such appliances as Mr. Byram asserts to have seen in use there, were so. My visits to the vines have been so frequent, and my observation so thorough, that I could not have overlooked the matter by any possibility. I have read Dr. Grant's statements and know them, in this respect, to be true.

HENRY HOLTON.

Sworn to before me, this 17th day of January, 1865.
WM. M. MARTIN, Notary Public.

About Advertising and Advertisements.

Some Hints to Business Men, to Contemporaries, and to Our Readers.

A man may have good and useful things to sell, but of what benefit will they be to himself or others, if he only knows of it? It is a duty to himself to advertise his wares in some way; and if they are specially useful to the public, it is his positive duty to advertise them as widely as possible. In illustration, take the history of this journal. It was one of the first good papers of its class issued, and had it gone into every family in the land, it would have awakened thought and experiment, and have benefited the country untold millions. Yet for ten years, comparatively few thousands knew of its existence, or that it would be beneficial to them, and its influence was therefore limited. A few years ago the Publisher concluded that if patent medicine men could thrive by boldly advertising nostrums, then something really worthy of public regard should succeed by the same means. He therefore began to advertise largely in other journals, and by handbills, posters, etc. To enlist others in introducing the paper, desirable premiums of good kinds were offered. By these various efforts, together with the fact that the journal itself has been maintained and increased in excellence, it has secured a far larger circle of readers than any other similar journal. Is it too much to claim that this has been a public benefit, as well as to the advantage of the proprietor? The millions of copies of this paper, sown broadcast over the land, have without doubt done much to awaken interest and promote improvements, and thousands have actually thanked the publisher for leading and almost compelling them to read, and to think about their own calling. Thus our double object is gained; we advertise, offer premiums, etc., "to do good and make money."

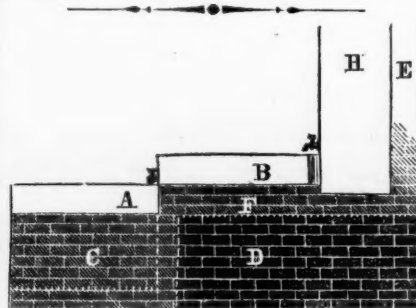
In further illustration of the desirableness of advertising, take the case of a good nurseryman—one who starts with the determination to do a straightforward, honest business. It may cost him \$10,000 a year to keep up his establishment, and he may sell just enough to meet expenses. If he had customers he could produce and sell \$10,000 worth more of trees without increasing his annual expenses by \$3,000. Would it not pay to spend \$2,000 or \$3,000, or more even, in making his business widely known? There are plenty of people already interested in horticulture who would like to know all about his stock; others would be led to think about trees and then buy them, if our good nurserymen would advertise so strongly as to compel attention. An honest nurseryman should above all others advertise so largely as to get the start of dishonest dealers. So with seedsmen, and almost every other class of respectable business men.

In these remarks we have no "ax to grind". All our available space for advertising is taken up early, frequently overcrowding the reading matter more than we desire. This would not be permitted were not the advertisements valuable to our readers. As it is, we are compelled to shut out many for want of room.

And now a word to some of our contemporaries. If they would only exclude worthless advertisements, good dealers would more readily patronize their columns—those who dislike to appear among quacks, "gift enterprise men," etc. Some say they can not live without taking such advertisements. Better die at once then, than live as the agent of such parties. Others

say they can not decide between the good and the bad. If an editor can not, with all his means of information, it is hard for his readers. But it is not difficult. The editor in charge of our advertising department is instructed to admit no person whom he would not be willing to patronize, if wanting the articles advertised. By scrupulous care in this respect, this department of the paper has come to be relied on by the readers almost as much as the reading columns. And in this matter honesty has proved the best policy. To our agreeable surprise, what we thought at first would be a sacrifice, when refusing advertisements which could pay us best, has really proved the most profitable course, for reasons already set forth.

A word more to the readers. At the urgent request of customers we have omitted some reading matter, to make room for business notices. But perhaps the space is best filled thus. By this means a great 'variety store' is brought to the door of each reader, from which he can select what he desires, and easily procure it by sending according to directions given. Advertisers are always gratified to know where their advertisement were noticed, and readers will confer a double favor by always mentioning the name of the paper that gave them the information when addressing parties for circulars, or sending in orders.



SAP BOILER.

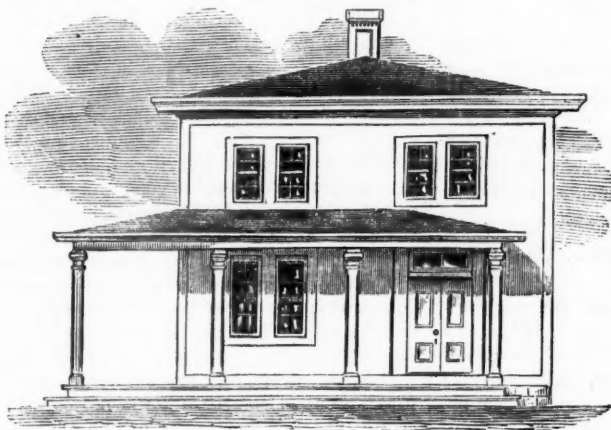
Maple Sugar Making.

In answer to a request last month from practical sugar makers, W. B. Wentworth, Allegany Co., N. Y., writes to the *American Agriculturist* as follows: "I make from 1,400 to 2,000 pounds of maple sugar per year, according to the flow of sap. First, for spouts: I think the sumach best, the pith of which can easily be burned out with a piece of wire of proper size. The spouts are then sharpened to fit a $\frac{1}{4}$ inch hole. I bore the trees with a $\frac{1}{4}$ inch bit (a little smaller will answer as well), and put two spouts in a tree, unless the tree is quite small. When the holes become dry, I ream out the holes with a pod bit a little larger than the first, and the sap will often flow as freely as at first. The sap is gathered and boiled in sheet iron evaporators, the best of which I think are made of two sheets riveted lengthwise, and one across the end. This is turned up six inches, and if made of good iron, with a $\frac{1}{4}$ inch wire put in around the top, or a strip of band iron 1 inch wide and $\frac{1}{4}$ thick riveted around in place of the wire, it will need no other support. Bars of iron should not be put under the pan, as they would cause it to burn out much sooner. An evaporator made in this way, of good material and well taken care of, will last fifteen years. The syrup should be boiled until it will break in scales from a sheet iron dipper. Then strain through flannel into a tub largest at the bottom, and let stand a few hours to settle. Milk may be used to clarify the syrup when sugared off. The milk should be put in

when the syrup is cool, and thoroughly mixed with it. A good vessel to finish off sugar in, is made also of sheet iron, about 2 $\frac{1}{2}$ feet long, 14 inches wide on the bottom, and 1 foot high—a little larger at the top—with wire put in to strengthen it, and handles on the ends.

"A very nice way to prepare the sugar for market is to run it in moulds made in boards of cherry (which I think best), or good pine will do. They are made with a tapering center-bit, which makes them 1 $\frac{1}{4}$ inches on the bottom and enough larger at the top to make them come out readily, and nearly one inch deep. It should take about twenty such cakes to weigh a pound. Pour hot water over the boards, and then let them get nearly dry. The sugar should be done quite dry, and then stirred until it is just cool enough enough to run smoothly. Let it stand in the moulds until nearly cold, then turn them over and rap on the board, and they will come out nicely, and can be packed in boxes for market. Saleratus and candle boxes for packing in can usually be bought at the stores and groceries cheaper than new boxes can be made."

A Sap Boiler.—Joel Page, Windham Co., Vt., in a long and interesting letter, for which we have not room, sends a description of an arrangement for boiling down sap, which he says is much used and liked in that vicinity. The engraving gives a side view. C, D is an "arch" or walls of brick work. C is open within to receive the fire, and D is solid, except a flue at the top (F), to allow the smoke to pass to the chimney, E. Cast iron bars are placed lengthwise of C, a few inches from the ground, for the wood to lie upon. The fire box, C, is opened and closed by an iron door in front, not shown in the engraving. A sheet iron pan, A, of 65 to 75 gallons capacity, is set with the bottom about two inches below the top of C. A second sheet iron pan, B, of like capacity, is set on the part D; and back of this, next to the chimney, E, is a heater, H, holding 15 or 20 gallons. H rests in the opening of an iron plate made for the purpose, just as a boiler is set in a cook stove. Faucets in H and B allow the hot and partially reduced sap to pass into A, where the boiling is finished. The flow may be regulated so that a small, constant stream will just supply the loss from evaporation. The mason work of the arch should be carefully put up to support the weight of the pans, and also to ensure a strong draft through the flue. The best situation to place such an apparatus is on a hill-side, where the top of the arch may be 7 or 8 feet below the store tubs which receive the sap as it is brought from the trees. One of these properly placed may be furnished with a faucet, through which a regulated and continued stream may be discharged into the heater. The whole should be properly protected from the weather. Such an arrangement will answer equally well for boiling sorghum syrup. Mr. Page says that cast-iron pans require less continued watching to prevent their being spoiled by burning, but sheet iron are the best evaporators. The above arrangement is greatly superior to the old-fashioned, huge, open kettles, slung on a stick supported by crotches, which were formerly used; probably, however, some of the evaporating pans introduced for sorghum boiling are better yet. Those who engage largely in the business of sugar making will find it convenient to study the various plans offered, and adopt the one best suited to their circumstances.—At the present and prospective prices of sweetening, it is worth while to provide in season for producing all the maple sugar possible.



Cheap Frame House, with Specifications.

The house plan herewith presented is sent to the *American Agriculturist* by a practical builder, Mr. J. P. Hopper, Godwinville, N. J., and is, with a few slight modifications, precisely as furnished by him for a house in Hoboken Township. The specifications were calculated on prices prevailing here a year ago, so as to bring

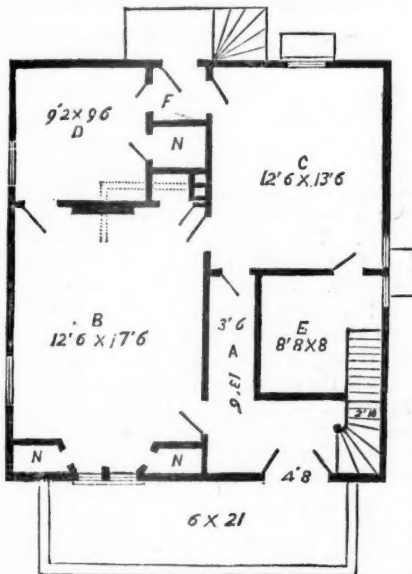


FIG. 2.—FIRST FLOOR, OR GROUND PLAN. A., Hall; B., Sitting Room or Parlor; C., Kitchen; D., Bedroom; E., Bedroom or Store Room; N., N., Closets, sizes indicated. The cost within \$1,000, which price would, however, be considerably exceeded now. The house fronts toward the north, having a piazza on the front and east sides, shown only on the front in the plans (figs. 2 and 3). The front door, 4 feet 8 inches in width, opens into an entry sufficiently capacious, containing the staircase. From this we enter the sitting room or parlor on the left, or pass through to the kitchen in the rear. On the right of the passage is a room entered from the kitchen, answering the double purpose of store room and kitchen closet or buttery. A small bedroom on the same floor communicates both with the kitchen and the parlor. There is a cellar under the whole house, the stairs to which descend just outside the back door. The house is 26 by 28 feet; height between joints is as follows: cellar 7 feet, first floor 9 feet, chamber floor 8 feet.

"SPECIFICATIONS"

of materials and workmanship required in the erection and completion of a dwelling house to be built according to accompanying plans; all materials to be of merchantable quality, and

all work to be done in a good and substantial manner, and the ground cleared of rubbish and left in good shape, etc., etc.—Cellar to be made 4½ feet deep; foundation walls to be stone, laid in lime and sand mortar, 18 inches thick and 7 feet high, and neatly pointed. Windows in cellar 4, 10 by 15 glass, 3 lights wide. . . . Frame, 26x28 feet, with 18 feet posts and hip roof, of sound, spruce or hemlock timber; posts and sills 4 by 8 inches; the ties and plates 4 by 6; rafters 2 by 6; studs 3 by 4, and 2 by 4; all beams 3 by 8; second floor ceiling pieces 2 by 6 inches. The whole to be well framed and braced; all beams and rafters 24 inches between centres; studding and second story ceiling pieces 16 inches between centres. . . . Outside, to be of good narrow siding, say 5 or 6 inches to the weather, and lapping 1 inch, with close joints, and nailed to each post, brace and stud.—Water-table, cor-

6; studs 3 by 4, and 2 by 4; all beams 3 by 8; second floor ceiling pieces 2 by 6 inches. The whole to be well framed and braced; all beams and rafters 24 inches between centres; studding and second story ceiling pieces 16 inches between centres. . . . Outside, to be of good narrow siding, say 5 or 6 inches to the weather, and lapping 1 inch, with close joints, and nailed to each post, brace and stud.—Water-table, cor-

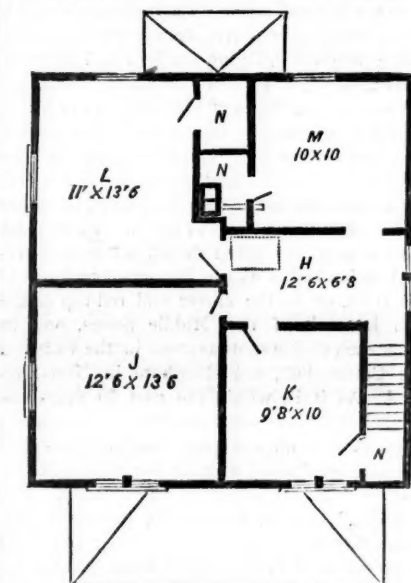


FIG. 3.—SECOND FLOOR, OR CHAMBER PLAN. H., Hall; J., K., L., M., Bedrooms of the sizes indicated; N., N., Closets. ners, window and door casings, 1½ inches thick, the water-table rabbeted. The cellar stairs to be inclosed with narrow beaded ceiling boards. . . . Cornice, according to plan (fig. 4); that on piazza ½ smaller than that of main roof. . . . Piazza.—Rafters 2 by 4, planed smooth, covered with narrow beaded ceiling stuff; gutter formed to discharge the water at two points. Columns and caps according to fig. 5. . . . Roof and back stoop rafters, covered with 1 inch spruce or hemlock boards, with close joints and well nailed on each rafter. Gutters formed to discharge the water at two points by leaders to the ground. Roofing.—Any good cement or other roofing, the cost not to exceed 5 cts. per square foot. . . . Floors.—1½ inch spruce or pine, wedged tight and well nailed. The divisions into rooms, etc., to be according to the plan. . . . Doors.—All 1st story doors to be 1½ in. thick, double faced and moulded, and 7 feet high; 2d story doors, single faced and moulded, 6 feet 8 in. high. Fixed lights over front and back doors. . . . Windows.—2 first story windows with 7-inch mullions, lights 10 by 15, 8 in each half; 3 windows with 12 lights of the same size each; 3 second story

windows with 7-inch mullions, lights 10x21, 8 in each half, and windows of 12 lights each, of same size. All 1½ inch sashes, counter checked,

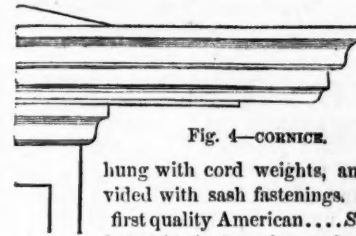


Fig. 4—CORNICE.

hung with cord weights, and provided with sash fastenings. Glass, first quality American. . . . Stairs, to have 1½ inch string and steps, ¾ inch risers, wedged, glued, blocked, and strongly back nailed, with a 2½ by 3½ moulded black walnut rail, 6 inch fancy-turned newel post, and 1½ inch fancy-turned baluster. . . . Trimmings.—Parlor and front entry trimmed with 5½ inch casing "coved out" to the bead; moulding and back band 7 inches wide; kitchen, bedrooms, etc., with beaded casings and back moulding. Base 7 inches wide, with Grecian ogee moulding. Closets, with plain casing and base, shelved and furnished with clothes hooks, as owner may direct. Step-ladder to scuttle in roof.

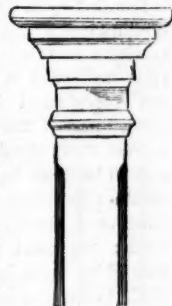


Fig. 5—COLUMN.

. . . Plastering.—All the rooms and closets plastered throughout; parlor and entry receiving a good sand "skim." All other rooms, two coats, even laid. . . . Chimney carried up from cellar, with two 8-inch flues, topping at 20 by 28 inches, and 3 feet 8 inches above the roof. . . . Hardware.—Locks all mortise locks; porcelain knobs and key plates, and 3½-inch loose-joint butts to first story doors; mineral knobs and 3-inch butts to second story doors. Bolts to outside doors. Judd's axles and pulleys, and Japan sash fasteners. Five doz. clothes hooks. . . . Painting.—Two coats white lead and oil outside and inside.

These particulars will be of value and interest to many readers, and the technical expressions will be easily understood by those at all familiar with building terms. The house would be made warmer were it lined with brick between the lathing and clapboarding. This would add considerably to the expense, but more than proportionately to comfort. The bricks for filling in may be laid in a clay or "dirt" mortar.

Gravel Wall Houses and Barns, Etc.

Winter is the time when farmer folks discuss building, and we have numerous letters asking our opinion of gravel wall and concrete houses. The subject is a very important one to all who build dwelling houses, or erect any masonry structures in a country where stones and gravel are abundant. At sundry times we have consulted good masons and house carpenters in regard to the value of concrete for house walls, and invariably had assertions like the following most authoritatively made: That the whole thing was a humbug; that the walls would not stand; that they would absorb moisture like a sponge, and go all to pieces after a severe freezing and thawing; that, even if they stood, the houses would be damp, the walls "sweating" on the inside; that they could not be built with any regularity or evenness; that they would always look unfinished and patchy if indeed, they stood at all, and it was clearly proved (if we would accept their premises) that

they would cost a good deal more than wood—fully as much as well laid stone or brick, and not be nearly so comfortable. This is, we believe, the experience of those wishing to employ this material, who consult builders about it. The few who persevere, and because they can not get regular mechanics to do the work at reasonable prices, do it themselves, often meet at first with the accidents and mishaps to which all inexperienced persons are liable when they undertake to do work at which a regular apprenticeship ought to be served. The walls being carried up too rapidly, crush with their own weight; sufficient care not being taken in regard to a dry foundation, water freezes in the wall and makes trouble; and so careless work produces its legitimate effects in other respects.

The writer's knowledge of this mode of building is founded upon the testimony of friends and acquaintances who have used it, and now occupy concrete houses. We advise no one to undertake to build a concrete house who can not superintend it himself, and in fact do a good part of the work, and no one who is in a great hurry should even think of it. The work should be done in fine weather, and in stormy weather the walls should be well covered. The lime used should be uniform in quality and fresh; the sand and gravel clean, and trials should be made beforehand, to know the most desirable proportions of lime, sand and gravel. The quality of lime varies very much, but when the best quality of building lime is employed, (which is not advisable, because too expensive,) one part (say a bushel) of unslacked lime is said to make 25 parts (bushels) or more of concrete.

A friend of large experience, whom we have consulted, says: "By all means advise whoever wishes to build a gravel wall house to put up some small building or an L first, so as to learn all those little matters of manipulation which can not be well described; and fairly get his hand in before he undertakes to put up a house of considerable size," and we entirely believe in the wisdom of the suggestion. The subject can not well be treated in the limits of a single article in our crowded columns. Another month we may discuss some of the methods of putting up the walls, materials, etc.; adding here that we have repeatedly seen properly built houses of this kind where the objections specified above were without foundation. Mr. W. B. Waldo, one among many witnesses we could cite, writes: "I have had some experience with concrete or gravel wall, having built a small house for a tenant, and a fence around my barn yard. I am no mechanic, but I did the work with the help of a young German (who had never laid a stone except to repair an old fence), who has since occupied the house five years. We did the whole, wood work and all. Any common, neat workman can build a very good-looking and desirable house for himself, buying only a little lime, some joists and planks, floor boards and nails. The best large barn, and the best two-story dwelling house in our town are built of this material. I think you cannot better serve your readers than by instructing them in the art of gravel building. It is far easier than to lay a commonly good stone fence, which neither the German nor I could have done."

EMBARGO ON HAY.—The Maine Farmer reports that the War Department has issued special orders prohibiting the exportation of hay from that State, except for Government account. The immense supplies of hay required for forage in the army makes this step

necessary. The Government will purchase all hay not needed for consumption in the State, paying therefor a fixed rate per ton. Several large lots in process of shipment for Europe were recently taken possession of and immediately forwarded to the army. The price paid is \$26 per ton, for common pressed hay, and \$32 for Beater-pressed, the latter being preferred for transportation. See last volume, page 236.

Milk—Beef—Labor...II.

ADAPTATION TO THE LAND.—For whatever purpose cattle are raised, regard should be had to the character of the soil, the climate, and the topography of the country. Although the various breeds of cattle will maintain their peculiar characteristics for several generations, whether they be kept on the rich plains or rough and sparsely grassed mountains, yet as we all seek the greatest profit, we must know the adaptation of each breed to our own locality, and be guided accordingly in their selection.

The adjective *lordly* has been well applied to the Short-horns—the breed which may be considered as showing the greatest effects of culture. They are of the largest size, well boned, but not coarse, with small heads, large carcasses, straight backs, wide in the pelvis, deep in the flank, maturing very early, laying on flesh and fat with great rapidity, and when slaughtered, remarkable for the smallness of the offal. In order to exhibit these qualities in any thing like perfection, they need good feed and plenty of it, all the time, shelter in cold weather—in fact, good stabling—and the better care they have, the more rapidly will they grow and fatten. There is no reason why the breed should not be perpetuated in perfection on the blue-grass pastures of the West, or in the clover and red-top of the rich intervals of the Middle States, and in other such choice spots as occur in the valley of the Connecticut, and elsewhere in New-England. As it is, within the past 50 years the Short-horns have been gradually disseminated more or less all over the United States and Canada, producing a great improvement upon the common stock of the country. The "grades," that is, half-bloods, quarter-bloods, etc., being the product of crossing the bulls upon common or half-blood cows, possess the external characters and feeding qualities of their sires to a great extent.

Very different are the characteristics of the *Devons* (sometimes called North Devons, though the South Devons as such are not known in this country nor bred distinct in England.) They are much smaller, much more active, tougher, able to get a good living where a Short-horn would almost starve, not so early in coming to maturity, but being serviceable proportionately longer. The cows give richer milk than the Short-horns, and a good supply; they require less care, and with fair treatment remain productive and healthy to a great age. This breed adapts itself peculiarly to the rough parts of New England, and many portions of the Middle and Northwestern States—especially where the steers are used in the yoke or find a ready sale as working oxen. Their qualities in the yoke will be discussed in a subsequent article. When put to feed, they fatten rapidly, and many connoisseurs think they furnish the most delicious beef which we ever have in our markets.

The *Ayrshires*, *Alderneys* and *Dutch* cattle are peculiarly milk breeds, having been bred chiefly for Dairy purposes for many generations. The Dutch cattle are large, great milkers, slow and

logy in their motions, good feeders, and are adapted for similar situations to the Short-horns. The Ayrshires are much more active, smaller, not above medium size, thrive in good pasturage, but sustain themselves very well on "short commons." They give large quantities of milk, but not rich in quality. The Alderneys are even more active than the Ayrshires, but are great eaters; they need therefore good and abundant pasturage, not of the juicy succulent sort, but sweet and fine. They are not adapted to general dairy use, but particularly for families keeping one, two, or three cows for their own use, or for dairies where very choice butter, a "fancy article," is made. The oxen of these breeds are not esteemed, because too small for heavy work.

The *Herefords* are adapted to a wider range of pasturage than the Short-horns, not so active as the Devons, but are large, excellent for beef, of not much account for the dairy, but good workers. They mature early, and of course like the Short-horns are most profitable on fat pastures. On good fair farming land, any of the breeds will do well, but as we depart from this toward either extreme—toward the rich prairies and intervals, or sparse pasturage—we must exercise judgment in selecting a proper class of cows, and suitable bulls for their improvement.

Profits of Sheep—Dog-laws.

Sheep raisers have found the business very profitable for the past few seasons. Fine wool sheep have been in great demand, and immense numbers have gone westward from New-York, Pennsylvania, Ohio, and Vermont. There has been a very nearly equal demand for mutton breeds. The markets for wool and mutton have been good and the seasons favorable on the whole. A correspondent in Susquehanna Co., Pa., writes to the *American Agriculturist*:

"I know a farmer in the township of G, in this County, who had a flock of twenty-four sheep at the setting in of the winter of 1863-4. They all lived through and had a common increase in the spring. Immediately after shearing, a part of the wool was sold at what proved to be a low figure, but brought \$37.60, and 28 lbs. was used in the family, which at the former price was worth \$19.60. During the summer sheep and lambs were sold out of the flock to the amount of \$35.00. All the above amounts to \$92.20, and the flock now numbers 26. What is there that pays better than sheep? Yet the damage done and liable to be done by dogs deters many farmers from entering extensively into sheep raising. There has been a law passed within a few years past for this and several other counties in this State, levying a tax on dogs; but the tax is so low that it has reduced the number of the dogs very little. The fund so raised goes to pay in whole or in part for sheep killed by dogs, any surplus going to the school fund. Now if every man who reads the *Agriculturist* would interest himself in this matter and circulate petitions to the Legislatures of the several States for laws levying a tax so heavy that it would materially reduce the number of dogs it would be far better for our country."

Our correspondent subjoins a form of petition which may be used in bringing the subject before the law-makers of any of the States. There has not as yet been a single State throughout which a good dog-law has been well enforced. That the thing is not impracticable has been proved by the enforcement of dog-laws in certain counties, to the great advantage of the agricultural interest. The half-way work of

permitting towns or counties to legislate on the subject for themselves—that is to enforce a law against dogs, or not, according to whether the dog interest or the sheep interest is strongest, is making a farce of legislation.

FORM OF PETITION.

To the Honorable Senate and House of Representatives, of the State of

The undersigned, inhabitants of the County of, in the State of, respectfully represent: That many of us suffer directly and personally, and all of us indirectly, from the destruction of sheep by dogs, and that the ravages of dogs are so great as to be a serious detriment to the prosperity of this State, by preventing farmers from entering largely into sheep raising. We therefore earnestly request your Honorable body to pass a law for the registration of all dogs, imposing a tax upon every dog and dog pup of not less than one dollar, and upon every slut and slut pup of not less than five dollars; and at the same time urge that the law be so framed as not to be easily evaded, and that its accurate carrying out be secured by rigorous penalties. To this end your petitioners as in duty bound will ever pray.

The Sheep Mania.

For several years there has been a gradually increasing interest in sheep raising, which seems now to have reached nearly its height in a mania for paying most extravagant prices for fine wool sheep of different breeds. The rise and course of this mania—for such it now really amounts to—has been marked by much more common sense, practical views, than those which prevailed when the delicate little Saxony sheep sold for so much, and infused their next to worthless blood into most of the best flocks in the country. The exquisite fineness of their wool had been produced at the expense of the constitution of the breed, and the result of this extensive importation and dissemination of the Saxons in this country was to degrade the vigor of our merino flocks, reduce the weight of the fleeces, not increasing the fineness in proportion, and on the whole greatly to discourage the efforts making for the improvement of our fine wool flocks. This taken in connection with the uncertainty of our tariff laws, was sufficient to bring the fine wool sheep into discredit.

Now, however, it is very different. A breed of very great excellence has been virtually originated among us, and become extensively disseminated. This breed of American merinos we have before repeatedly alluded to—combining as it does the excellences of the Spanish merino, with larger size, better form, heavier fleece. It is not remarkable that upon the increased demand for wool, and the inflation of prices brought about by the war, the trade in sheep should have received a great impetus. At the same time almost, one of our enterprising breeders obtained at a World's Fair in Germany the highest prizes for some of these same sheep, thus giving them a world-wide reputation, which brought to a certain extent a foreign demand, in addition to greatly increasing the demand for the American Merinos at home. We hear of sales of rams for \$800, \$1,000, \$2,500, and ewes and lambs in proportion. It is even reported that Mr. Edwin Hammond, of Vermont, refused to take \$10,000 for his ram "Golden-drop."

Many people have taken to sheep raising who were entirely ignorant of the business, and every animal which had the look of a Merino and a greasy fleece has had a ready market. If

a young man, with a good farm, well adapted to sheep culture, with a free capital of \$50,000 to \$200,000 to start business, and withal having knowledge of farming, a good business education, and love for animals, wishes to begin to breed sheep, with a view to establishing a flock, and making breeding and improvement of sheep a life-business, he can afford to pay very high prices for his original stock, and for such animals as he deems necessary to improve his flock in any important points. Others, who breed for the current profits less than for ultimate reputation, can not afford to pay these high prices. They will never get their money back, except in the cases of some owners of extensive flocks, upon which the influence of a few rams of good quality may be very great.

In view of the fact that the use of well-bred males is the surest method of improving any of our domestic animals, it is safe to assume that there will constantly be a demand for good rams at remunerative prices. Sheep raising within easy reach of good markets ought to have reference to them, and to the production of flesh, rather than wool. The price which the coarser kinds of wool have brought the past season will impress this upon sheep breeders. So great has been the demand for certain grades of coarse wools that they have brought higher prices than superior grades of Merino and other fine wools, and have met with a much quicker and more advantageous market. The price of sheep for slaughter has been high, keeping pace fully with the cost of corn and hay.

What are Goats Good For?

"Good for nothing!" exclaims the downtown citizen, as he takes his airing along the Avenues leading to the Park, and spies the beasts nibbling stramonium, dock, thistles, and other coarse herbs in the vacant lots. "A perfect nuisance!" cries the up-town housekeeper as she ejects them forcibly from the front yard, or snubs their noses with a broom stick, when they are poked through the fence. She is about half right. An animal out of place is a nuisance, as a plant out of place is a weed. A pig in a flower garden snuffing the perfume of mignonette and roses is decidedly objectionable, though he might be a gem of a brute thrusting his unjewelled snout into a muck heap, and feasting upon larvæ and bugs.

There can be no doubt that the thousands of goats that roam unmolested in all the suburbs of our cities are great torments to all civilized, orderly citizens. They are thieves and burglars breaking into your premises at night, crawling through the smallest possible hole, and climbing over the most exemplary fences. You plant a favorite shrub in your yard, the gate is left open by some careless visitor, the goat enters, and your darling is stripped in an hour of every thing that made it valuable. If it escape death not a flower bud is left upon it; and hardly a twig smaller than a pipe stem. You have goat tracks, filth, and destruction, instead of your pretty flowers. Unless you are a Christian very much subdued and resigned to earthly losses, you will have indignation and wrath, heart burning and harsh words for the poor Bridgets who pasture their untidy flocks on your green area. No doubt this nuisance ought to be abated as much as mad dogs.

But the question has another aspect to the Squatter Sovereigns who rule in our suburbs. "In faith sir, the baste gives the richest of milk, and what d'ye think is a poor man's tay worth

widout a sup of milk? Don't ye see that the goat turns every praty peeling into milk, and it don't cost me a penny." Patrick's view of the case from his side of the question is a very sensible one. These animals turn every foul weed, and every waste of the shanty into wholesome food for his children, and their chubby cheeks, flaxen hair, and rolling blue eyes, full of frolic and fun, are a good certificate for the alimentary value of the article. What does he care for the trouble his brutes give his rich neighbors? Don't he live in a free country, and don't the grass grow for the good of every body, and wouldn't the grass and weeds run to waste if his goats didn't eat them? The goat is a very useful animal to the Squatter Sovereign, and he will not give up his chattels until the strong arm of the law compels him to. There ought to be a tax of ten dollars levied upon every goat kept upon New York island. Perhaps that would right this great public wrong. While the Squatters can get their three quarts of milk a day from each new milch goat, they will not be likely to give up their privilege.

Among civilized people the goat is a useful pet for children—a sensible substitute for a dog, inasmuch as he draws a wagon better and don't bite so hard. He does not get rabid and impart his virus to your child. If he butts him over, the fall is not apt to be dangerous, and rarely comes unprovoked. He is also a good substitute for a grub hoe and bush scythe. If you want clean work made with a rocky bush pasture, put in a flock of goats. You can sell your scythe for old iron. But before you make your investment in goats, please remember that they are death on fruit and ornamental trees as well as bushes.

Italianizing Bees in Box Hives.

BY M. QUIMBY.

Many bee keepers would introduce the Italians in their apiaries, if it could be done with the box hive. I will give a method by which, with only one movable comb hive, a small apiary may be Italianized in a season. First, introduce an Italian queen into a colony in the movable comb hive. No matter about the bees being all changed; if the queen is inaugurated, it is all right. Drive out all the bees of some good stock into an empty hive, and set this on the stand. Take the hive from which the bees were driven, with its contents, to the stand of the one with the movable combs. Lift out the combs and shake or brush the bees down by the box hive, into which they will enter immediately. Now take the movable comb hive with contents to the other stand, and shake that colony into it, and you have simply traded hives for each colony, and each will carry on the operations of the hive, the same as if it had always been there. The one in the movable combs can now be controlled. After a few hours, when the bees have become quiet, take out the combs, find and destroy the common queen. In a week cut out all the queen cells, and introduce an Italian queen, and when she has filled the comb with eggs, four or five days after, this colony may be transferred also. The process may be continued until all are changed. The cells cut out being Italian, may be put into the rearing boxes to hatch. I have given this method—perhaps unseasonably—that it may be understood, and one or more movable comb hives be prepared before the season to operate.

Make a man think he is more cunning than you, and you can very easily outwit him.

Some Notes on Potatoes.

Of late years new varieties of potatoes have multiplied with a rapidity only equalled by that of new grapes. Some of the varieties of comparatively recent introduction have been sufficiently tested to show that they possess decided merit, and deserve to be widely known. There is, perhaps, no crop more affected, in



Fig. 1—COTTAGE.

both quality and quantity, by the character of the soil and climate than the potato, and no kind can be said to be equally good in all localities. The first requisite in a potato is, that it should cook dry and be of good flavor. If for marketing, it should be white-fleshed. There are some who discard all yellow-fleshed potatoes as unworthy of cultivation—a conclusion with which we cannot agree. Though potatoes of this character will not bring the highest price in the New York market, yet there are several having yellow flesh which are valuable for the table, and on account of their large yield, profitable varieties. The size and depth of the eyes are of importance, as in sorts with deeply set eyes there is great waste in peeling. The keeping qualities and freedom from disease, as well as the productiveness, are all important, and any variety deficient in these is unfit for a field crop, although a moderate bearer may possess other qualities which make it desirable as a garden sort. With potatoes, as with fruits, there is much confusion as to names,—a very widely disseminated variety often has several local names, and a well established name is frequently used to aid the sale of indifferent sorts. As it is difficult to describe varieties in a way that will allow them to be identified with any certainty, we have had engravings made which will give a much better idea than could be conveyed by any description, however carefully written. The figures, from average specimens, are one half the natural size.



Fig. 3—SAMARITAN.

Early Cottage, Fig. 1: This is said to have originated in Albany County, about the year 1858. The vine is very strong and vigorous. The yield is large, early, and the tuber keeps well.

Early Shaw, Fig. 2: This was introduced to the cultivators around New York by one of our editors, who obtained it in Michigan. It is said to have originated there, in Lenawee county, and to be a seedling of the Mercer. Perhaps some of our Michigan friends can give the true



Fig. 2—EARLY SHAW.

account of its origin. From the fact that there is an English potato known as Shaw's Early, which is a favorite early kind in the London market, we had supposed that the story of their Michigan origin was an error, and that the English variety had been introduced into that State by way of Canada. As two Englishmen, both of whom were familiar with the English sort, assure us that our Early Shaw is a very different potato from theirs, it seems probable that the variety did originate in Michigan, and that it unfortunately received a name which had already been bestowed upon another potato. The vines are not very vigorous, nor is the yield large, but the tubers are very uniform in size. For earliness and excellence, we have not seen its equal. Even when taken very young, the potatoes are of good quality. The skin is wholly or partially covered with a characteristic roughness. While its moderate yield will prevent its being a popular market sort, it is an excellent variety for the family garden. Fig. 2 gives the shape and also the comparative size.

Early Samaritan, Fig. 3: This originated in the western part of New York. Is early and of good quality: does not yield as abundantly as the Early Cottage. Jackson White, Fig. 4: Supposed to be a seedling from the Carter, and to have originated in Maine. It is one of the standard market varieties, and though not as early as either of the preceding, its good quality, fair yield, and good keeping, make it deservedly popular. The form is more irregular than in the varieties already enumerated, and its eyes are more deeply sunken. Though the flesh is slightly yellowish in the raw state, it is white when cooked.

Fluke, Fig. 5: This is a remarkably neat-looking long potato, somewhat flattened; has a smooth skin, and eyes not deeply set. It is late, yields largely, and keeps well. A friend, who tries every variety of potato he can obtain, says that the Fluke "is the best potato in existence." It has not been grown as yet extensively enough at the East for us to recommend it for general cultivation, but at the West it is highly valued. It is difficult to see how any potato can be better than a properly baked Fluke, as we have eaten it at the West. All potatoes have their quality more

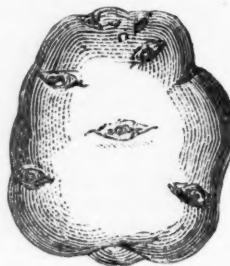


Fig. 4—JACKSON WHITE.



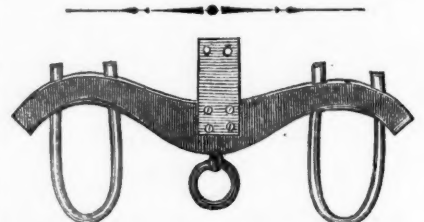
Fig. 5—FLUKE.



Fig. 6—DOVER.

or less injured by exposure to the light and air, but this variety is very delicate and more rapidly deteriorates from this cause than almost any other. It has been confounded with both the Prince Albert and the Mexican, both of which it resembles in form. Its eyes are less prominent than those of the Prince Albert, and the skin smoother than in the Mexican.

Dover, Fig 6: A very marked variety, its large and deep-set eyes serving to distinguish it from all others. Where several eyes come together at the "seed," or "blossom end," the depression and irregularity are even more striking than is shown in the figure. The other potatoes noticed above are white, while this has a light red or pinkish color. It is of excellent quality, but is late, though it may be eaten whenever the tubers are of sufficient size. As it is not a large cropper, and its form is not pleasing, it is not a good market sort, but by many it is preferred to all others for their own family use.



Driving Horses and Oxen Together.

S. Edwards Todd, writes to the *Agriculturist*: "In many parts of the country, horses are often hitched forward of oxen, when plowing, subsoiling, trenching, or performing many other kinds of farm or highway labor. Whether the driver be by the side of the oxen, or behind them, the horns and head of the ox on the near side, will often interfere with the reins; and if the driver is small in stature, the difficulty is increased still more. Moreover, a man can not drive horses as well, while he is traveling at one side, as he could if his reins were to go directly back from the horse for a few feet. My practice has been, when accustomed to drive a yoke of oxen and a span of horses together, to fasten a piece of board, to the front of the ox-yoke, with four wood screws—as shown in the accompanying engraving—through the holes near the top of which, the reins are allowed to play. The board is about one foot long, and six inches wide; and the holes for the lines not less than one and a fourth inches diameter, and reamed out so that the lines would play easily back and forth through them. When a man uses only one horse in front of a yoke of oxen—as many farmers are accustomed to do—this simple contrivance for holding the lines in place, will always be found very convenient; it can be easily removed, when it is not needed.

"An Important Discovery."

A New Era in the Manufacture of Sugar—A Promised Revolution in Commerce—A Golden Road to Wealth.

Such is the heading of an article, which originated in Buffalo, and is copied into papers in various parts of the country. The article goes on to tell how one Prof. F. W. Goessling has discovered a process for obtaining sugar and syrup from Indian corn, that at least three and a half gallons of syrup are obtained from a bushel of corn, with "an equivalent amount of granulated first quality sugar,"—if any one can tell how much this is. We learn that a company

has been formed and has purchased the patent for \$600,000. There being a "Company," there will be stock to sell and many people will be sold. Starch sugar is an old story,—making cane sugar from it is altogether another matter.

A Talk About Grass....1st Article.

Several requests have been made for a series of articles upon the various grasses in cultivation. Although grasses are among our most common as well as most useful plants, there is a great lack of definite knowledge concerning them, and the same grass is in different parts of the country known by different names, or the same name is applied to very different species. The ordinary grasses are readily recognized by farmers, but if asked to describe Red-top or Blue-grass in a way that would enable another to know them, they would find it a rather difficult matter. The leaves and stems of the different kinds of grass are so much alike, that it is very difficult to give such descriptions of them as would enable a person to recognize them by any peculiarities these present, and we are obliged to go to the flowers to find those distinguishing marks which will allow us to identify the different sorts with any certainty. Unfortunately, the flowers of grasses are very small, and so unlike the flowers of other plants in appearance, that they are at first sight rather difficult to understand. Still, with the aid of some enlarged



Fig. 2.

drawings, we hope to show the structure of the grass flowers, and then it will not be difficult to trace it out in the grass itself. Let us begin the study with a head of Timothy, which can readily be pulled out of almost any hay-mow. The head consists of numerous little chaffy bodies, closely placed around the stalk; these are the flowers. Carefully remove a portion of them from the head and spread them out on a piece of white paper. Those which have not been broken up in the removal will appear like fig. 1, and consist of two chaffy scales, folded together and very much compressed or flattened, furnished upon the back with bristly hairs, and each terminated by a stiff bristle or awn. Fig. 1 is what is called a *spikelet*; the two scales are *glumes*. It will be noticed that one of these glumes is outside of, and folds over and covers the edges of the other, and that the inner one is attached to the minute stalk a little higher up than the other, as will be seen in examining the real flower, though it can not easily be shown in the drawing. In describing a grass, the *glumes* are spoken of as lower and upper. In order to see what is inside of the glumes they must be carefully separated. This is best done by means of



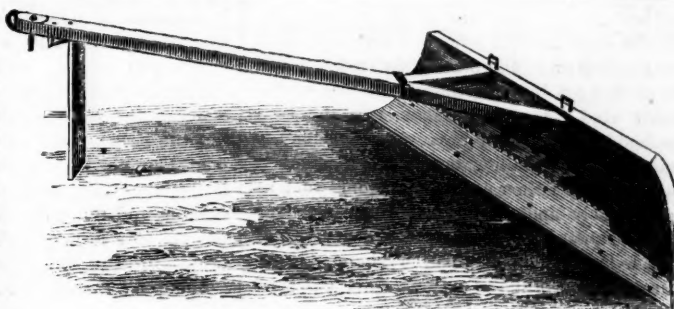
Fig. 3.

two needles, fixed in small wooden handles, to answer as pickers. In examining a fresh grass it is easy to spread the glumes apart, but the dried specimen must be soaked awhile in a little water; this will make the glumes flexible and allow them to spread as in *a, b*, fig. 2. Within the glumes are two other smaller scales, *c, d*, fig. 2, of a more delicate texture, which are called *paleae*. In the figure they are shown detached, or lifted out of the glumes. The paleae have the same position with relation to each other as the glumes; that is, one is outer and lower, and the other inner and upper. The upper one is almost always smaller than the other, and is usually marked with two lines (*nerves*) running through it, while the lower one has from one to several of these nerves. The shape and markings of the *glumes* and *paleae* serve to distinguish *species*. In the case of the Timothy, the bristle-pointed and flattened glumes and the delicate small paleae are characters by which it is readily recognized. Within the paleae are the pistil and stamens, which will be described presently. Examine now a spikelet of Red-top, fig. 3. Here we have a similar arrangement of parts, though they differ in shape and relative size. The lower and upper glumes, *a*, and *b*, are without the bristle-points and hairs of the Timothy, while the paleae are more unequal in size, the lower one, *c*, being much longer than the upper one, *d*.—Fig. 4

gives the parts of a Red-top flower all separated from one another; *a, b*, lower and upper glumes; *c, d*, lower and upper paleae, while the stamens and pistil are shown above. In the dry specimen it will be difficult to make out the *stamens* as they are delicate and readily broken. They are shown in figs. 2 and 3, at *e, e*, and consist of an oblong case or *anther*, supported by a very slender thread or *filament*. The anthers of the Timothy are light purple and make the head quite showy when in flower. The stamens are also shown in fig. 4. The pistil, as seen in fig. 4, is a little egg-shaped body, which is the *ovary* and will become the grain, with two feathery appendages, the *styles*, proceeding from its upper portion. These styles are also seen in figs. 2 and 3.—In fig. 4, a couple of small scales are shown just below the stamens and pistil, which in a popular account of grass structure may be left out of consideration. The examples here given are among the simplest forms of grass-flowers; if the description of them seems dry, the looking out of the parts in the real specimen will be found interesting.

Road Scraper—R. I. Bent or Blue Grass.

An active farmer friend of ours in Rhode Island, often urged to furnish for the *Agriculturist* some of his practical notions, writes: "Rather than write, I would like to mix up a kettle of hot paint and apply to the wood work of my



CONVENIENT ROAD SCRAPER.

new road scraper—or see whether a pair of sled-runners can be got out of a "crook," I cut yesterday—or rub over the hams and shoulders again—or pack the sausages in snow—or ride up to Greene, the sawyer, and stir him up about that stuff for a portable fence—or sharpen the wood saws—or drive the oxen to the village for shoes—or forty things beside. Action forever! General Grant (God bless him!) will find his pastime, after the war, in clearing up a stump or Canada thistle farm, I'll warrant. My mind will run back in spite of me to that road scraper. Let us work it out.

ROAD SCRAPER.

"There is no patent upon this tool, I believe, and it can be built by any one who can make an ox-yoke. A chestnut or oak log, of 2 feet or so in diameter and 6 feet long, is worked out in the manner indicated in the cut, with a twist, gaining about a foot in the six feet length—so that when the tongue, which is inserted diagonally, is in the yoke ring, the right-hand end will meet the ground like a plowshare, while the other falls away to the rear with a twist like a mould board. It is faced with an old saw plate, and is good for raising the road bed of a new road, or for smoothing the ruts of an old one. Large staples are inserted on the share or tongue to receive handles. It is a combination of scraper and plow.... Since writing the above I have applied a hot coat of gummy, cheap linseed oil and redding to the wood work, and mean to give it two more.

R. I. BENT IDENTICAL WITH KY. BLUE GRASS.

"The farms of Rhode Island have a grass which they call "R. I. Bent." It is highly prized as a pasture grass upon lighter soils, making a compact, permanent and productive sod, under very ordinary conditions of fertility, and is used for lawns. I have studied it among Naragansett farmers for four seasons past, using my eyes and asking lots of questions. Chas. L. Flint, in his "Grasses and Forage Plants," classes it with Red top—for which I can find no foundation. All the information I can collect from my neighbors, points to a very common grass, of habits and appearance identical with what Mr. Flint calls "Green Meadow Grass, June Grass, Common Spear Grass, Kentucky Blue Grass, &c. (*Poa pratensis*)," and says it grows all over the Northern States. This grass is a great favorite with me. I find it in all handsome roadside or pasture sod in Rhode Island and Connecticut, and during a recent journey through New-York State I found my old acquaintance in all directions. Near Canandaigua, hearing a farmer boasting of a field he had in Blue Grass, I was at some pains to verify the familiar matted aftermath under this name. It is not easily eradicated from land, nor easily introduced; that is, if you plow an old pasture or meadow containing it, and take off a crop or two of grain or potatoes, manuring lightly, seed enough will be left in the land to bring in the

old sod again in the course of two or three years. On the other hand, if sowed on very rich land, with spring grain and other grass seed, it would be choked out by the greater luxuriance of the other seed. I would sooner risk the seed bushed in upon an old meadow where Timothy and clover were failing, or alone in September. Almost every farmer has this grass, and such as graze sandy and gravelly land can well afford to cultivate it. I propose sending you a sod of "R. I. Bent" next summer, in bloom. If we can drop some of the above names all the better."

For the American Agriculturist.

Expensive Shelter.

In a recent trip over the Harlem Railroad, I saw sights that made me feel quite at home, and ashamed of my birth place. Connecticut ideas must have emigrated long ago across Byram River, and established themselves in Westchester, Putnam, Dutchess and Columbia counties, and it had been fortunate for the country if they had stopped east of the Hudson. Snow covered the ground, and a bleak northwester swept over hill and valley. There stood the cattle by the stack yard, working oxen, steers, cows heavy with calf, and heifers; their feet drawn up close together; their backs arched; their hair erect—shaking pictures of discomfort and misery. They were not just let out of the barn for an airing; for there was the pitchfork sticking in the hay, showing that they had been foddered there, and the bare spots upon the ground, where they had lain down, melting the snow under them. These were unmistakable signs that these cattle took the air for twenty-four hours in the day, without respect to thermometer or weather gauge.

I wanted to get out of the cars, and take the owner by the throat, and say to him, "You miserable Connecticut sinner, what do you mean by tormenting these dumb brutes in this way? Do you ever go to church? Do you read your Bible, touching the 'merciful man showing mercy to his beast?' Do you ever read Shakespeare to learn that the 'quality of mercy is not strained?' Yours is strained so tight that it never gets out of you, and you torment these poor creatures with the slow tortures of frost and tempest."

Is it not astonishing that farmers will practise this barbarity, after all that has been said in the *Agriculturist* and other papers against it for the last dozen years and more? Is it not a marvel that close-fisted farmers, with a keen scent for the fraction of a copper in trade, will waste hundreds of dollars in this wretched slipshod custom? If any thing is demonstrated in the experience of our enterprising farmers, it is the economy of stabling cattle in the winter, from November to April. At least one-third of the fodder is saved by it, and the cattle come out in much better condition.

What would be thought of the wisdom of a farmer who should build a separate small barn for every animal upon his farm, instead of building one large one to accommodate the whole? It would be a terrible waste of lumber, and a monument of his folly. Yet he might better do this than to attempt to shelter and warm each by itself at the stack-yard, by superabundant hay. What would be thought of the man who, instead of building his little barns with lumber, should make them of the best hay, thatched from top to bottom? Yet this is just what the farmer is doing who follows this barbarous custom. The thatch is applied inside of the animal

in the shape of fodder, instead of outside in the shape of shelter. The hay is consumed by slow combustion to keep up the animal heat, and how much of it goes, you may judge, who have watched the consumption of fuel on a zero night to keep up the heat of a room. If the animal does not have hay enough, the flesh and fat gathered in summer, go to make up the deficiency, and the creature pines, the ribs stick out, the hide grows rough and bristling. The brute is tortured, and the owner's purse depleted.

Make an estimate of the loss of this barbarism. If it takes two tons of good hay to winter a cow in a barn, it takes three to carry her through at the stack. With hay at thirty dollars a ton, here is a dead loss of thirty dollars. With ten cows the loss is three hundred dollars, to say nothing of the diminished milk, butter and cheese next summer. Is not hay applied at the stack-yard a very expensive shelter? CONNECTICUT.

What a Patriotic Woman Can Do.

The beautiful picture, "*Farmer Folks in War Time*," published last month, was no mere fancy sketch. Numerous letters received at the *Agriculturist* office show that the women of America are worthy descendants of their heroic grandmothers, who gave their husbands, sons and brothers to their country, and themselves filled the vacant places in the more peaceful, but not less important, fields at home. Below we give extracts from a beautiful and touching letter by such a woman. The hand writing and general style evince high culture and refinement, but these have only brightened, not impaired the strength of character exhibited:—"My husband and self were both teachers until house duties called me out of the school room. Having a great taste for rural occupations, we rented a farm one mile from town, and while my husband pursued his school duties, I spent my time in farming on a very small scale. Thus happily the time wore on, until our country was reeling in the agonies of this dreadful rebellion. At the beginning of the war, we gave up our only two brothers, who, thank God, have lived through the fearful three years of service, and returned home this fall from Atlanta. As the thousands of men were called out, the deep love of my husband for his family held him back, but patriotism filled his manly breast to overflowing; neither night nor day could he rest until he too went forth in answer to his country's call. One year ago last August he was commissioned as Captain of Co. E, Fifth United States Colored Infantry. Through all the hardships of their vigorous campaign he led his men unshrinkingly, as his many fellow officers testify, without one murmur. After he entered the army we bought the farm which we had rented, and he left me as the manager, unbiased and free to do as I thought best. I hired a hand, and to the best of my ability, and by the aid of the *Agriculturist*, I succeeded pretty well, considering the terrible agony of suspense that racked my soul through all those days of terrible assaults upon the works of Petersburg. He kept me up by his words of hope, love and cheer, and willingly I labored, until my labor became a pleasure, to lift the heavy payments at the appointed time, and make as many improvements as possible before his return. It was joy to gather around our new house that which I knew would please him. In the spring I paced the long rows of eight acres, dropping all the corn, in order that it might be in season. To be sure there were frequent showers, but I managed to scare away

the clouds with the 'family umbrella,' and I have a nice little crop of corn of near 200 bushels. My farm lies in the edge of a large white oak swamp, and needs drainage very much, which, as yet, I have not been able to give it to any great extent. Twelve acres of meadow were cut, and two acres of oats. Last winter I had my ground put in excellent order, and helped to plant out a choice orchard of apple, pear—dwarf and standard—and cherry trees, laid out in quincunx style. A new stable floor was laid; timber for a new wood-house, 20 by 23 feet, was cut, hauled and sawed, the house erected and nearly finished. I raised $\frac{1}{2}$ acre of sorghum, stripped and cut it myself, and have the pleasure of a nice barrel of molasses. Fences were reset, and when I thought the work was going on too slowly, I donned my bonnet, and tried my hand at helping to set stakes and build a new fence. I do not wish to boast of my feeble efforts, but these were my employments the last year, while my soldier Captain was risking his life in his country's warfare. While digging my fifty-two bushels of potatoes, and gathering my pumpkins, etc., etc., my thoughts were far, far away! On the 28th of July my husband was mortally wounded. He lived nine hours, and then gave up his noble spirit to God, for the sake of our Country, Union and Liberty. His body was embalmed and sent home. Oh! that coming home—my heart is broken, but I have three little children, for whom I know I must labor yet a little longer. My hopes are now all in Heaven; but although earth has grown dull and lonely, I love my country none the less, but all the more for the sacrifice of all that made life dear to me. Heavy debts are hanging over me, but patient creditors are favoring me. In doing for my little family, I hope I am serving my country as every patriotic woman should do, in trying to raise food for the 'thousands in the field,' and the thousands more to go."

Tim Bunker's Raid Among the Pickle Patches.

MR. EDITOR:—"What is in the wind now?" asked Seth Twigg, as Mrs. Bunker and I started off down the Shadtown road.

"Smoke," said I, as Seth pulled out his stump of a pipe, and blew a puff into the air like a small locomotive just firing up. Old Black Hawk has n't been used much lately, and he went off considerable gay, as we struck the turnpike on Seth Twigg's corner. Seth did not follow his big-bellied Dutch pipe a great while, but fell back upon his own tried and trusty clay stump. It is mighty hard for old dogs to learn new tricks, and Seth is one of 'em. My letter agin tobacco didn't have any more effect on him, than peas rattling on a tin pan.

"Well, I didn't mean that," said Seth, "Where are you gwine?"

"I am going down to Shadtown, to take the boat," said I.

"Then where?" asked Seth, perseveringly.

"And then to New York, and up into Westchester county, visiting. And if any of the neighbors get into a quarrel, jest tell 'em they'd better make up, for I shan't be back under a week, and there won't be any court."

You see the way it came about was this:—Sally got a letter a few weeks ago from her cousin, who married Noadiah Tubbs, thirty years ago, and moved off to Westchester. Cousin Esther and Sally used to be about as thick as blackbirds in the pie, before they were

married, but haven't met often of late. She hadn't more than read the letter, when she said:

"Timothy, it is a dozen years since I have seen Esther, and she used to be the best friend I had before I found you. And if you feel as if you could spare the time, I should like to go down and see her this winter?"

"Agreed," says I. And we got ready and started off the next week.

Noadiah Tubbs (they call him Diah, for short, and sometimes, Uncle Di,) lives on the banks of the Bronx, about a dozen miles from the city. He is what they call in Hookertown a case, or hard customer. How in this world Esther came to marry him I never could see, and I am a little more than ever in the dark about it since our visit. Perhaps he's grown worse since he got married, or else I've grown better. I ought to be a good deal better after living so many years with Sally Bunker. At any rate, Diah and I seemed to be farther apart than ever. Why! the creature don't go to meeting more'n once a year, and then it is when he is going to be put up for representative or sheriff, when he thinks, may be, he'll get a few votes from church people, if he goes to meeting. I am sorry to say there is rather a bad state of morals all round Diah's neighborhood. The Westchester sinners, from what I see of 'em, are not a bit better than Hookertown sinners. The folks don't seem to have much idea of Sunday, except as a day of visiting, hunting, and fishing. Rum-holes are plenty, and I guess this state of morals accounts partly for the fact that Diah Tubbs has so run down to the heel.

But you need not suppose that Uncle Di is a fool, because he uses rather coarse language, and goes to the tavern oftener than he ought to. He is a pretty fair farmer, or would have been called so a dozen years ago. He knows a heap about raising cucumbers, which they call pickles in all this region. Whether they have heard that the world uses any thing else besides cucumbers for pickles, I couldn't say. I used to think, before I took to writing for the paper, that I had learned about all I could on farming matters, but I find, as I go about, that every region has some new kink in farming, some special crop that I've never paid much attention to. All around Diah's they grow cucumbers by the thousand. Almost every farmer near a railroad depot puts in an acre or two, and gets about as much clean cash from the patch as he does from the rest of the farm.

I see very soon that Uncle Di knew some things that I did n't, and as I wanted to learn I got him started the first evening after I got to his house, on his favorite topic, raising pickles. There was a large dish of apples on the table when we began, but not many of 'em left when we got through. Says I, "What do your folks call this the pickle crop for?"

"Wal," said Diah, "I don't zackly know, but guess it's 'cause its shorter than cowcumber. May be it's 'cause they grow 'em more for the pickle factories than to eat up fresh."

"Do they have factories for this business?"

"Sartain, big five story house over the river, where they make 'em up by the million."

"And how many pickles do you suppose they raise in your town?"

"Wal, I could not tell, but it is an awful sight—enough to sour the crop of all creation, you'd think, if you should happen to be here in August, and see 'em going down to the depot. Most every farmer goes into it more or less, and would raise a great many more if he could get help just when he wanted it."

"How do you prepare the land for this crop?"

"Wal, there ain't much of a knack about that. I fix it pretty much as I would for corn, only I take more pains to make it mellow and light. If a green sward, it must be harrowed thoroughly, and the lighter you leave it the better."

"Is there any particular advantage in having the land fresh?"

"I never could see as it made much difference. Neighbor Bussing has 'em on the same land sometimes three years running. I 'spect more 'pends upon the dung than any thing else, and where you have pickles, you calculate to manure pretty high, and a good deal is left over for the second year."

"What kind of manure do you use?"

"Any I happen to have in the yard. It wants to be well rotted, and if ain't fine I fork it over until I make it so. Coarse stuff won't answer."

"How much, and how do you apply it?"

"If I have plenty of manure, and I believe in that article if I don't in any thing else, I spread on a good lot broadcast, and plow it in. I don't 'spose the crop gets the whole the first year. Then I put a good heapin' shovelfull in the hill."

"And how far apart are the hills?"

"I run the furrows pretty deep, just four and a half feet apart both ways, and make the hill at the crossing. One man drops the manure, and another follows with a hoe, mixing it a little with the soil, and covering it an inch or two."

"What time do you plant?"

"When I raise for nothing but pickles, I plant about the last week in June."

"Suppose it is a dry time. What then?"

"I give the manure a good soaking. It is pretty important to have the seed come right up. You see the cowcumber is of such a nature that if it gets sot, it is of no use to try to start 'em. You must push 'em right along."

"And what variety do you plant?"

"We ain't got any pertikular name for 'em. They ain't Clusters, nor London Greens, nor Russians. I guess they are a sort of mixture, for every man raises his own seed."

"Is there any particular knack in doing that?"

"Yes there is. More 'n half the battle lies in raising the seed. I tried some seed I got in the city once, and didn't have any luck at all. It won't do to take the odds and ends for seed. If you want a lot of pot-bellies and nubbins, plant the seed of such, and you'll get 'em. I generally take the cucumbers that grow on the second and third joint, and let them ripen for seed, and don't allow any body else to see to 'em. I put 'em where I can find 'em in the summer."

"How many do you have in a hill?"

"I plant from five to ten, and thin out at hoeing time to five or six."

"How many times do you hoe?"

"I cultivate and hoe but once, and it is pretty important that that should be done at just the right time. A day too late makes a great deal of extra work. I run a plow about three times between the rows just before the vines fall over and begin to run, then dress out with a hoe."

But I see that I can't tell you all that Uncle Diah said in this letter, and if your readers' teeth are not all set on edge, next month I'll give 'em some more pickles.

Hookertown, Conn., } Yours to command,
Jan. 5th, 1865. } TIMOTHY BUNKER ESQ.

AN IN-DOOR SMOKE HOUSE.—Whoever wants a cheap and convenient smoke-house, let him make it while building his kitchen chimney. After carrying the chimney up to the chamber floor, or the garret if preferred, build a tight closet of brick, well plastered, adjoining the chimney and connected with it by openings at

the bottom and top. If the height of the kitchen is high enough to cool off the smoke from the fire below before it reaches the closet (for you don't wish to fry the hams just yet,) the smoke may be diverted into the closet from the flue just above the ceiling, and then let off into the chimney again through an opening at the top. Otherwise a small fire must be made in the closet. Of the material for making the smoke, we prefer corn-cobs, or maple, or hickory sawdust. Such a smoke chamber will not only be handy in all weathers, and safe from thieves, but furnish an excellent place for keeping hams and dried beef in summer. An occasional smoke can be made, or a rubbing over with fine pepper may be given to keep away vermin.

One Acre Enough—Sometimes.

An "Ex-Market Gardener" gives to the *American Agriculturist* the following illustrations of what can be done on a small piece of land, by hard work and high manuring. The story looks large, but we do not doubt its truth:

"On a fertile acre, within sight of Trinity Church steeple, New York, but in the 'benighted land of Jersey,' lives a man whom, not to offend his modesty, I will call 'John Smith.' John's neat cottage and acre cost him, some eight years ago, \$3,000—now worth \$6,000.

"In the spring of 1864, he planted on his acre 12,000 Early Wakefield cabbage plants, which, by the first week in July, were sold in the New York markets, at \$8 per 100, for \$960. Between the rows of cabbage were planted, at the same time, 18,000 Silesia lettuce plants, which, at \$1.50 per 100, brought \$270. Both crops were cleared off by 12th July, the ground again thoroughly plowed and harrowed, and planted with 40,000 celery plants, which were sold before Christmas of same year, at \$3 per 100, for \$1,200, making the total receipts \$2,430.

His expenses were: "Manure \$150; keep of horse, \$300; interest on \$6,000, \$420; hired labor, \$400; incidental outlay, \$100; amounting in all to \$1,370, which deducted from the receipts gave him the net profit of \$1,060.

"John is only a common-place man. Some might call him a clod-hopper. He has no particular skill, no great share of "brains"—his only prominent quality is untiring industry; but it would be difficult for any one, no matter how endowed with skill or brains, to make more of an acre than he has done.

"Another more ambitious friend, who thinks ten acres no more than enough, has, with nearly the same crop, laid himself liable to pay Uncle Sam's 5 per cent. from his income on his 'truck patch,' his profits having been this season, on ten acres of land, \$5,700, over and above household expenses. Both of the above are exceptional cases, their grounds being in the very highest state of cultivation. But it is a fact beyond all question, that in what is known as the 'Communipaw district' the net profits per acre, for the past three years, have averaged \$500.

"No greater mistake can be made, either by farmer or gardener, than spreading himself over a large surface. The market gardeners of New Jersey, in the vicinity of New York, cultivate from one to fifteen acres each. The most successful are those who have been content with six or eight acres. I believe their success will bear favorable comparison with that of the Long Islanders, whose farm-gardens contain from ten to one hundred acres each. As a class, they are hard-working and frugal, and all who have weathered the storm during the past dozen years are now independent."



A FAMILY SLEIGH RIDE. — Engraved for the American Agriculturist.

Thus far the winter has been remarkable for the long continuance of sleighing. No unusually heavy snow storms have occurred, but the falls have been so timed that the winter roads have mostly remained in admirable order. Family rides and pleasure parties have made the otherwise dreary hours bright with enjoyment; it has been spring time in the social world, if not in the almanac. No field repays cultivation better than the home circle. It can scarcely be too often urged that the children should expect and find greater enjoyment in the company of their parents and each other, than among strangers. The winter season is especially the time to strengthen home attachments, because so many attractions abroad are offered, and the comparative leisure gives better opportunity for recreation. Books, papers, and games within doors, rides in the family sleigh, and other out-door pleasures, may and should leave memories so bright that, in after years, the hearts of the children will ever turn with strong yearnings to the old homestead. The commandment, "Honor thy father and mother," will be rendered easy of performance, if parents do not neglect this essential part of duty.

COAL ASHES.—Let any one doubting the value of hard coal ashes for manure, try them for walks. Dig out the soil three or four inches deep, throw into the bottom any coal cinders, yster shells, small stones, or other rubbish, for

a foundation; then put on the ashes. Roll them, and the walk will be smooth, hard, and dry. If this does not quite satisfy one's taste, let him just put an inch or two of fine gravel over the ashes; then roll smooth and solid. No wind will spoil such a walk, nor will it be muddy. It is the cheapest of good walks.

A Live Farmers' Club—Sorghum in Mass.

The Springfield Republican publishes some of the doings of the wide-awake Farmers' Club, of Wapping, in Deerfield, Mass. Weekly meetings are held at a school-house, which are regularly attended during winter and spring, by both sexes. At a recent meeting, "Sorghum Culture" was under consideration. Last year sorghum seed was received by the club from the Department at Washington, and Mr. Hiram Root offered to be at the expense of machinery for producing syrup, if some dozen others would each raise small plots, and give him half the product for manufacturing. The plan was agreed to, and the machinery, consisting of mill and evaporator, were procured from Mansfield, Ohio. Five or six acres of the cane were raised. The results of the different plots were various, but the whole was sufficiently remunerative to encourage future trials. Mr. Root produced 154 gallons of thick, heavy syrup, from three-fourths of an acre. This account indicates the value of farmers' clubs, and also shows the ad-

vance being made in Sorghum culture. Many similar successful experiments were made in new localities last summer, and the day seems not far distant when the whole land will be sweetened with this northern home-grown syrup.

How a Pioneer Established an Orchard.

Mr. I. W. Rollins removed from New England to Minnesota, in 1855. At that time the locality where he settled was entirely new, there being no land under cultivation in his neighborhood. He did not wait until he could afford to invest in fruit trees before he provided for an orchard, but sowed apple seeds the first spring. In three years he had trees ready to plant in the orchard, and in four years more gathered his first fruit. He has now a healthy, thrifty orchard of 300 trees just coming into bearing. Many persons after they establish a new farm wait more than nine years before they are ready to plant an orchard of young trees, and then several years more for it to yield returns. A little providence at the beginning in starting the seedlings, a little skill in budding or grafting, and care in setting and protecting the young trees, are all that is needed to soon give the poorest settler in new countries a valuable orchard.

THE too frequent use of authority impairs it. If thunder were continuous it would excite no more sensation than the noise of a grist-mill.



Fig. 1.—BUTTERFLY FLOWER.

Some Curious Vegetable Forms.

All plants are engaged in performing the same general work—that of converting the crude elements of the earth and air into organized products fit for the food of animals. This might have been done equally well had the plants been made all of the same form, instead of with that great variety which now surrounds us. The study of plants shows us the wonderfully varied means employed to attain the same end. Though all the parts of plants show great diversity in form, this is most strikingly seen in the flower, in which every conceivable modification of shape as well as of color, is wrought. Among the most interesting flowers are those which resemble more or less closely some kinds of animals. The Calceolarias, looking very like large fat spiders, and the common Canary-bird flower (*Tropaeolum peregrinum*), which by the aid of a little imagination looks like a bird, are among the more common of these curious forms. To see the most striking ones we must go to the rare collections of the hot-houses, where among the members of the Orchis Family will be found flowers of strange shapes and brilliant colors.



Fig. 3.

The Dove-flower of Central America, which has what appears like a beautiful little white dove nestling within it, was figured in these columns



Fig. 2.

and the illusion is the greater from its being perched upon a very slender stem, so that when moved by the wind, it has the appearance of a butterfly hovering in the air. This plant thrives only in a warm and moist atmosphere, and can not be grown except in a hot-house. It is not flowers alone that simulate animal forms, but fruits sometimes put on grotesque shapes. The Snake cucumber (*Trichosanthes colubrina*), with fruit several feet in length, and shaped like a serpent, is frequently grown in green-houses. A nut from Demarara, called the Snake-nut, has a most curiously twisted kernel, which when removed from the shell, looks very much like a small serpent. Figures 2 and 3 give two views of this kernel, and show its snake-like form. The tree which produces it is related to the Horse-chestnut, and bears the rather formidable but descriptive botanical name of *Ophiocaryon paradoxum*.

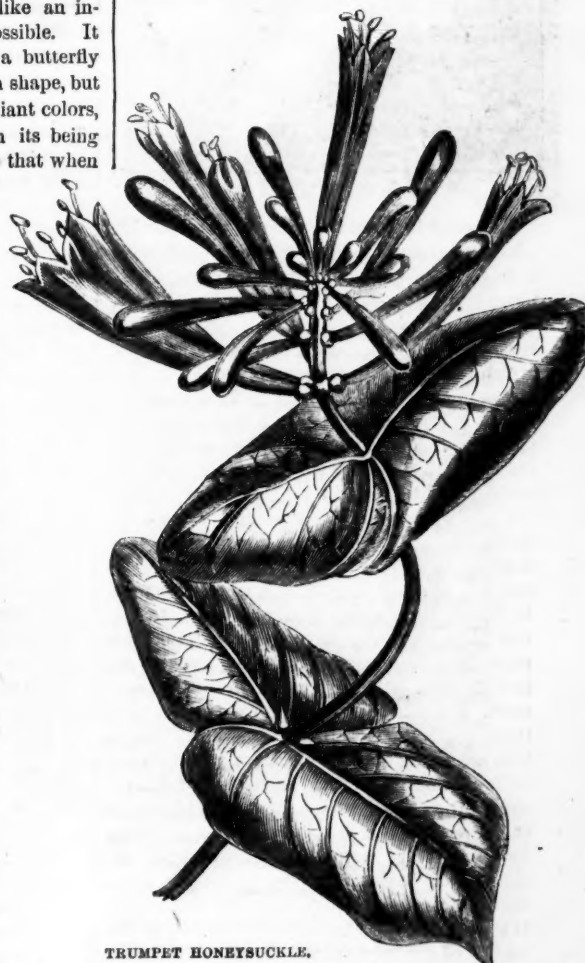
THE DIFFERENCE BETWEEN A FRUIT AND A VEGETABLE.—A Lady asks us how she shall reply to the question: "What is the difference between a fruit and a vegetable?" This is a rather difficult question to answer with precision. In one sense, all fruits are vegetables, and all the vegetables used as food by men and animals

are fruits. Horticulturally, those products intended for the table which first go through a preparatory operation in the kitchen, are called vegetables, although many of them, such as tomatoes, squashes, etc., may really be fruits, while melons, grapes, etc., eaten without preparation are fruits. Some, like the tomato, may be eaten either as a fruit or as a vegetable. Botanically the word fruit means the ripened ovary and its contents, together with whatever may be connected with it, as receptacle, calyx, etc.

The Trumpet Honeysuckle.

(*Lonicera sempervirens*.)

Among the woody climbers, the different species of *Lonicera* or Honeysuckle occupy a prominent place. The Woodbine, so woven into English poetry, is a well known species valued for its fragrance; and there are several others, the flowers of which are both beautiful and highly perfumed. As a covering for trellises, walls and flat screens, the honeysuckle does not answer as good a purpose as several other vines. Its nature is to wind or twine about some support like a pole, pillar, or trunk of a tree. As an ornament for pillars or poles, no vine is more suitable. The posts of a veranda or summer-house can be speedily covered by them. Supports of an ornamental sort are often made of cedar or pine, the shaft being about ten feet high, three inches in diameter at the base and tapering to two at the top. Short, transverse rods are run through them at about eighteen inches apart, and the honeysuckle allowed to twine about them. If one has a heap of bould-



TRUMPET HONEYSUCKLE.

ers, or a rocky ledge in his grounds, that he wishes to hide or embellish, let him set a scarlet

or yellow Trumpet Honeysuckle at the base, and they will trail over the rocks very soon. The honeysuckle may be trained and kept as a standard five or six feet high, by simply cutting off the leading shoot every year. It will then throw out laterals which will be covered with flowers all summer. Set a stout post of cedar or other imperishable wood in the center, to which the main stem is to be tied, and then the branches will hang down and trail upon the lawn in a beautiful manner. The species figured above, though not fragrant, is very showy, and has the merit of being a native. It has fine dark green leaves, the upper pairs being united at the base so as to surround the stem. The flowers are tubular, about two inches long, of a fine scarlet outside, yellow within and very brilliant. The engraving shows a portion of the plant of the natural size. Though the specific name, *sempervirens*, would indicate that it was an evergreen, it is not so at the North, but it retains its leaves during the mild winters of the Southern States. The neighborhood of New York City is believed to be the northern limit at which the plant is found growing wild, but it is abundant farther South. Several varieties differing in the size of the leaves and size and color of the flowers have been obtained from seed. It may be readily multiplied both by layers and cuttings.

Laying Out the Front Yard.

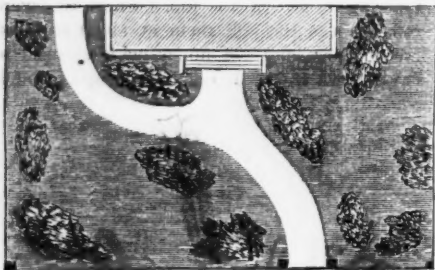


Fig. 1.

The space between the gate and the dwelling, which in large estates is termed the approach, is in those of moderate pretensions popularly termed "the front yard." There is to most homes, except in densely built cities, a greater or less extent of ground immediately in front of the house which is not devoted to crops, but which is usually more or less embellished by the occupant—though it is sometimes left in a deplorable state of neglect. Those who allow the grounds near the house to become a hospital for dilapidated vehicles and tools, and a ranging place for pigs and poultry, need first to practise a lesson in tidiness and order; but there are many persons desiring to arrange the approach to the dwelling in a neat and tasteful way, who apply to us to furnish plans which shall aid them. In several instances readers have sent us maps of their places as they now are, with a request that we furnish them with designs for their improvement. For obvious reasons we can not give these applications separate answers. Those who are laying out new places, or wish to make extended improvements in old ones, should either engage the services of a landscape gardener, or carefully study the works of Downing, Kemp, Smith, or other writers of acknowledged authority. Each situation presents its own peculiar features, and the plan, especially if the place is a large one, must be made with regard to the nature of the surface, the views to be secured or shut out, the trees, rocks and other natural objects to be preserved, and other conditions

which a person of taste will observe, and to which he will adapt his plans. There are some suggestions however, which apply equally well to large and to small places, and which should be

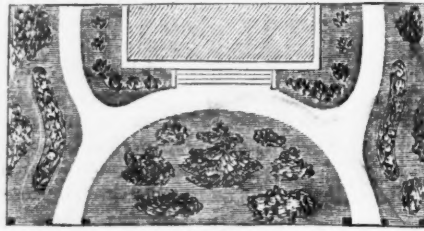


Fig. 2.

observed in plans involving the expenditure of large sums, as well as in the more economical ones. Simplicity, ease and convenience, are to be sought, while stiffness, formality and intricacy are to be avoided. The prime essentials in a front yard, approach, park, or whatever name we choose to give it, are, a fine turf and roads or paths. A lawn well made, and densely turfed is an object of beauty in itself, and serves as the setting for trees, clumps of shrubs, and flower-beds, all of which have their beauty enhanced by it. The roads or paths must be permanent in character, well made, well drained, and with their edges well defined. These two things being secured, the minor details are easily arranged. A few plans are given as suggestions to those persons who wish something to start from—it often being easier to modify a plan than to originate one. The most difficult cases to manage are where the

house is built so near the road that but very little space is given in which to work. In these the path runs directly from the gate to the front door, which gives a stiff and formal appearance to the place, as the path divides what little ground there is into two equal blocks.

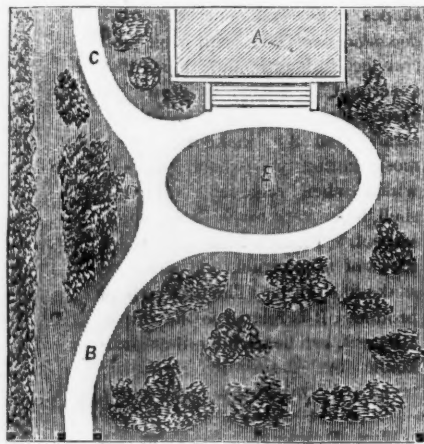


Fig. 3.

Fig. 1, shows how this formality may be broken up by placing the gate at one side, instead of directly opposite the entrance of the house, and allowing the path between the two to take an easy curve. This will give an appearance of greater extent, and it leaves the grass with a pleasing outline. A path at the left hand runs

to the rear of the house. Where the yard is very narrow, it is sometimes laid out as in fig. 2, which requires two entrance gates. The walk curves to the front door, and paths reaching the grounds at the rear may be made as in the drawing. This plan is rather formal, but it has the advantage that it saves a considerable unbroken extent of lawn in front of the house, and there are cases in which it will be found to be the best that can be adopted. The long and narrow lots, common in villages, are quite difficult to arrange in good taste on account of their awkward shape. In these the house is usually near the front of the lot, with kitchen and fruit gardens and stable, to which it is necessary to have a carriage road in the rear. One method of treating these badly shaped places is given in fig. 3, which shows the front portion of such a lot. A road, B, is run at one side the whole length of the lot, or as far to the rear as is necessary, leaving a border about 6 feet wide between it and the boundary. The front portion of this border may be occupied by ornamental shrubbery, while at the rear of the house it will answer for vines or dwarf fruit trees. From near the gate a pathway sweeps toward the house, if the place is small, or if the size will admit of it, this may be widened to a carriage drive. At D, is a grass plot at the rear of the house for drying clothes, which is shut off by a screen or hedge from the fruit and kitchen gardens, parts of which are shown at E, E. A place of considerably greater extent is given in fig. 4, where the carriage drive, B, turns around an oval, E, and reaches the stables in the direction of C. This plan is at once simple and convenient, and is capable of being adapted to large or small places. In this, as in the other plans, the trees upon the lawn are put in at the fancy of the engraver rather than as indications where we would plant them. We have not shown any flower-beds cut into the lawn, except in fig. 2. A few masses of flowers may be introduced with good effect, but where there is sufficient land the general flower garden should not be at the front of the house.

The Sheldon Pear—Historical.

In the description of the Sheldon pear, in the *Agriculturist* for November last, we gave the locality of its origin as cited by Downing. Since then we have had several letters from different parts of the country, each claiming to give a correct account of the history and origin of this pear. As these letters tell very different stories, they are quite amusing as illustrations of the difficulty in coming at the actual facts in so simple a matter as the history of a fruit which originated within the recollection of persons now living. Mr. P. B. Sheldon, Steuben Co., N. Y., writes a very full account of the pear, and as he is the son of one of the brothers whose name is borne by the fruit, we select his narration as most likely to be the correct one. According to Mr. S., the seeds which produced the Sheldon pear were brought from Connecticut about 50 years ago, and were planted on two separate but adjoining farms in Huron, Wayne Co., N. Y., by the brothers Wareham and Ral-seyman Sheldon. The singular part of the account is, that from this seed, four trees (one upon one farm, and three upon the other,) of the variety now called Sheldon, were produced. It seems very strange that four trees should be produced, the fruit of which was identical in character, and it would be interesting to know if the trees which have since been propagated are

from a single one of these trees, or from all four indiscriminately. We have heard only one unfavorable account of this variety, and this from an experienced cultivator in Conn. It may be that the progeny of the different original trees does not prove equally good, and that the above exception is the general verdict is due to the fact that clones have been disseminated from more than one of the four seedlings. As Mr. S., in his letter, speaks at one time of the "original tree," and at another of "original trees," we are left in doubt on this point. He states that he has had pears from the original tree that weighed 18 ounces; that the tree is not subject to blight, but that in some localities the fruit is, at intervals of several years, of an insipid quality, and that this happens with the original trees. It is singular that a fruit possessing the marked high character of the Sheldon should have been before the public for more than a quarter of a century and been so little disseminated, while during this period many foreign sorts have been generally distributed and cultivated, and many of them abandoned. This slow progress in popularity is attributed by Mr. Sheldon to the fact that it has had no person especially interested in its sale to puff it, but has depended entirely upon its own merits.

Some Weeding Implements.

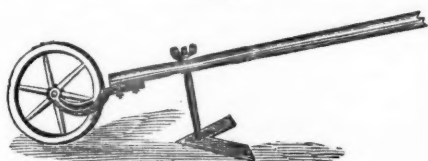


Fig. 1—WHEEL HOE.

A large share of all the labor in the garden is devoted to the destruction of weeds, and anything that facilitates this work, is of great importance to every one who has a garden. The ordinary hoe has been more or less superseded by weeding contrivances in great number, and we give a few of the simplest, such as can be made during the winter's leisure, with the aid of the blacksmith. Mr. Wm. R. Tatem, Phila. Co., Pa., sends a drawing of a Wheel-hoe which he finds very effective in working between rows of onions, and other crops sown in drills, as well as in cleaning paths. It consists of a V-shaped blade attached to a handle with a wheel at one end. The handle, the whole of which is not shown in the engraving, is of $1\frac{1}{2}$ inch stuff, 4 feet 9 inches long, 2 inches wide at the lower, and $1\frac{1}{2}$ inch at the upper end. A cross handle, 15 inches long, is attached at the upper end, to allow the hoe to be worked with both hands. The wheel is of cast iron, 10 inches diameter,

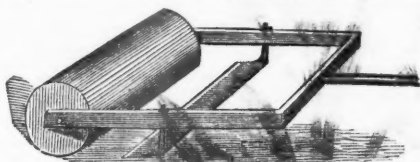


Fig. 2—MISSIONARY HOE.

with a rim $1\frac{1}{2}$ inch in width. It is attached to the handle by means of a curved shank, having two arms between which the wheel revolves. The axle is fixed in the shank, and the wheel turns upon it. The upright of the blade is of $\frac{1}{4}$ inch iron, $1\frac{1}{2}$ inch wide, and 12 inches long; this is attached to the handle at 6 inches from its lower end. It is found convenient to have some contrivance to alter the height of the hoe

in order to adapt it to the use of a boy or man, as may be required. It is used by means of a backward and forward motion of the arms.

Fig. 2, the Missionary-hoe is an implement on a similar principle, though differing in construction. A straight and narrow blade, about 8 inches long, is attached to a frame just behind a wooden roller, which serves as a wheel to regulate the depth to which the blade shall enter the soil. We have used this implement with satisfaction, and found it the safest thing to put



Fig. 3—SCUFFLE HOE.

in the hands of an unskilled laborer. It is said to have been invented by a missionary to some of our western Indians, and in clean, mellow soil it does good and rapid work.—Fig. 3, the Scuffle-hoe, also called Dutch-hoe, and Push-hoe, is a very convenient implement for destroying weeds. A Boston correspondent, is so much pleased with it that he is desirous that all our readers should become acquainted with it. We give a cut of one form of the Scuffle-hoe, and let our correspondent speak its praises as follows:

"Since I commenced its use I have kept my garden free from weeds with so much less labor, that it seems to make all the difference between weeds and no weeds. It should not interfere with the use of the hoe in loosening the ground around hills of corn, melons, etc., but for cleaning off weeds and breaking the crust after a rain, for running between rows of strawberry plants, of beets, onions, and other root crops, etc., it saves much hoeing and hand-pulling of weeds. A hoe must be pressed into the ground with considerable exertion, which is quite fatiguing to most of the thousands to whom the possession and care of a kitchen garden should be a luxury and a recreation; but the Scuffle slides just under the surface, pushing out the young weeds, while it allows the body to be maintained erect and requires but little effort. It is particularly useful for scuffling close to a fence about the posts, under currant, and especially about blackberry, raspberry, or bushes of a briary nature. To get the best advantages from it, one needs to be careful about the pattern, as there are many forms in the tool stores. I think the blade should be just 5 $\frac{1}{2}$ inches, that is the happy medium between too wide and too narrow; the handle should be long, say six feet, and the blade must be set upon it with such a slant as will enable a cut to be made either way, and the tool to be used without leaning over, that is, so that the blade may be flat on the ground when the end of the handle is at the height of the shoulder. If the ground has been allowed to get packed hard, or the weeds become large, the Scuffle won't answer, and one needs to brighten his hoe, or turn all the soil over with a spade."

In July last we figured and described the Bayonet-hoe, and since then several have written in praise of this simple and useful little implement. Mr. C. B. Meek, of Canandaigua, N. Y., states that he brought one with him from England, 28 years ago, and he has the identical hoe in use yet, it having been occasionally relaid with steel. He says: "I make all my drills for seed with it, and by working it deep between my growing crops, I can defy all drouths." Mr. M. states that this hoe was invented by the late Lord Vernon of Derbyshire, Eng., and that the proper name is the Vernon

Hoe. We were aware that it sometimes bore this name, and as it was earlier called the Spanish Hoe, we gave the name by which it is best known in this country. Whatever may be the oldest and therefore most proper name, it is certainly a most valuable garden implement.

Gardens for the Children.

A Michigan lady thus sensibly pleads the cause of the young people: "A great deal can be done to encourage horticultural tastes and industrious habits in children. Why don't farmers fence off little gardens for their larger boys and girls, and allow them to have all they can raise from them? Put agricultural papers in their hands, and encourage them to try experiments in wheat raising, cultivating seedling fruits, etc. Put a good magnifying glass into their hands, that they may become acquainted with their insect friends and enemies. To those old enough to appreciate and take care of them, give choice plants to cultivate, or what would perhaps sometimes be better, let them earn money in some way and purchase them for themselves. Don't turn them off with an Isabella grape when it will not ripen for you; let them have a Delaware or a Concord, that they may be more sure of a return for their labors. So of strawberries and other things. Excite in them a desire of excelling in raising fine fruits and vegetables. Let them get up children's agricultural fairs and horticultural societies for discussion, etc. Don't you think the Agricultural papers will be studied if you do this, and don't you think you will raise a family of intelligent and well-informed men and women?"

"So of domestic animals. If you have a boy a dozen years old, give him a yoke of calves to train; give the girls lambs, and let them have the fleeces as a reward for good care, or allow them to raise some fine cows for themselves. Children need objects to love, and incentives to faithful labor, and they will love home all the more if you attach them to it by pleasant memories and good kind instruction."—Well said.

A Diminutive Variety of Corn.

There are upon our Exhibition Tables some ears of corn about 15 inches in length, and we do not know how much larger ears may be produced; but in the opposite direction we think that the minimum has been reached in an ear sent us by Mr. A. Berry, Hamilton Co., O., with the name of "Brazilian Pop Corn." The engraving gives the exact size and shape; the color is a fine garnet red. An experiment with a few kernels shows it to be of excellent quality for popping; though it does not make as large grains as some other kinds. Mr. B. thinks he has acclimated the variety; at all events the ear sent us seems to be perfectly matured. It is recommended to grow it in drills, leaving the plants 18 inches apart. The suckers are not removed, as they bear as well as the main stalk, and each plant yields from 4 to 10 ears, or even more, according to circumstances. We are not informed if the variety is in the market.



"German Ivy."—*Senecio mikanooides*.

Under the name of "German Ivy" we have cultivated for several years a very quick growing, but rather tender climber. In shape its leaves somewhat resemble those of the true Ivy, hence its popular name—but it is really neither an Ivy, nor German. The plant is from the Cape of Good Hope, and belongs to the Composite family, one which gives us but few climbers. It has had a great variety of names—the correct one we believe, being *Senecio mikanooides*. *Senecio* is a very large genus, containing species from all parts of the world. The name *mikanooides* is given to the present one from its resemblance in its climbing habit to *Mikania*. Among other names for this plant we find *Senecio scandens*, *Delairea odorata*, *D. scandens*, *Breonia palmata*, etc. When the plant has liberty to run to an unlimited extent, it seldom flowers, but sometimes when confined, especially if grown in a pot where its roots become crowded, it blossoms freely. We are indebted to a friend in Lawrence, Mass., for the specimen from which the engraving is made. The flowers are of a lively yellow, and fragrant; they, as well as the leaves, are shown considerably less than the natural size. The chief use of the plant is to form a leafy screen, a purpose to which its large foliage and rapid growth well adapt it. It answers to cover unsightly objects in the grounds, and makes an excellent window plant within doors. It grows with the greatest ease from cuttings, every joint making a plant.

When is a Tree Grafted?

A correspondent in Whiteside Co., Ill., writes to the *Agriculturist*: "We have a few R. I. Greening trees which were bent down when small, and layers were made of them; therefore, the trees we now have are all grafted, roots and all. I wish to know whether the seed from the fruit of these trees will produce the same variety or not." The writer of the above does not seem to have a very distinct idea of what grafting is, and, in common with many others, supposes the term *grafted* applies to a quality of fruit, instead of to the process by which varieties are propagated.

The trees he refers to, instead of being any more completely grafted than trees usually are, in fact, are not grafted at all, but are merely R. I. Greenings "on their own roots," as the gardeners say. If cions from a very indifferent "natural" tree were to be inserted into these Greening trees, the fruit produced by them would be "grafted fruit," notwithstanding its inferior quality. As we are in the habit of perpetuating only choice varieties of fruit by grafting, many take it as a matter of course that fruit thus propa-

gated must be of a superior quality, which is in some way derived from, or imparted to it, by the operation of grafting. This impression is aided by the fact that budding is also called inoculating, and as this latter term is also used for vaccinating it has probably given the idea that the character of a tree is modified by the introduction of some virus or principle into its system. The error of this impression will be manifest when we compare the operations of grafting and budding with other modes of propagation. In making a *layer*, a branch is partly buried in the earth, and it remains more or less in union with the parent plant until it makes roots of its own. In propagating by *cuttings*, the branch is completely severed from the parent, and planted in the ground to strike root and form a new individual. In *grafting*, a cutting is planted in another tree, with which it unites, and uses roots already provided, instead of making roots of its own. The cion or cutting used in grafting has several buds upon it, while in *budding* a single bud is employed. The future growth from the cion or bud partakes of the character, good or bad, of the tree from which it is taken; and, though the fruit may be somewhat modified by the character of the stock upon which it is grafted or budded, we believe the influence is always confined within rather narrow limits.

FRUITS FOR ILLINOIS.—At a recent meeting of the Illinois Horticultural Soc'y the following fruits were recommended for general cultivation, without dividing the State into Northern, Central and Southern

fruit districts, as has formerly been done: *Apples*.—Early Harvest, Red June, Sweet June, Early Pennock, Maiden's Blush, Rambo, Snow Apple, Jonathan, Yellow Bellflower, Talman, Rawles' Janet, Willow Twig, Wine Sap... *Pears*.—White Doyenne, Flemish Beauty, Seckel, Duchess, Jersey, Easter Beurre, Bartlett, Osband's Summer... *Cherries*.—Early Richmond... *Grapes*.—Concord, Hartford Prolific, Delaware, Norton's Virginia, Clinton, Herbemont... *Quinces*.—The Orange Quince... *Blackberries*.—New Rochelle... *Raspberries*.—Doolittle's Purple Cane, Ohio Ever-bearing... *Strauberreries*.—Wilson's Albany, Iowa... *Gooseberries*.—Houghton, Upright Cluster, or Pale Red... *Currants*.—Red Dutch, White Dutch, Grape, Victoria.

A new "Everlasting Flower."

(*Helipterum Sanfordii*.)

Those flowers having that peculiar papery texture which enables them to preserve their form and color upon being dried, are deservedly popular. Besides being useful in the garden, they are valuable for dry bouquets, which make very pretty winter decorations. The number of these has been much increased of late years, and we now have a quite full assortment of colors, from the pure white of the *Ammobium* and *Acroclinium*, to the purple of some of the *Helichrysums*. Last autumn we saw in the collection of Mr. James Vick, at Rochester, a fine golden yellow everlasting flower, the habit and color of which were very pleasing. It was the recently introduced *Helipterum Sanfordii*, which is a very pretty border plant and when dried, holds its color remarkably well. Like all the rest, when intended to be preserved in the dry state, this should be picked as soon as the flowers expand, or before they are fully opened. Mr. Vick has sent us a specimen and we give an engraving which shows a cluster of the nat-



HELIPTERUM SANFORDII.

ural size, and at the left a much reduced figure showing the manner of growth of the plant.

Garden Seeds—Look Out for Them Now.

Every good gardener should now be looking after the seed that he is to sow next spring. Of the imported varieties, the supply will probably be much less than the demand, and even of home-grown seeds the stock frequently gives out by planting time, as was the case with onion seed last year. It is scarcely necessary to insist upon the importance of good seeds—good not only as being of a good sort or strain, but good as to their germinating power. Old seeds are often a source of great loss and disappointment, and many are sold each year which are only fit to be thrown into the fire. It is especially difficult to procure at a distance from seedsmen of reputation, seeds on which one can rely with confidence. Seedsmen put up their boxes of seeds with a flaming printed label, "Warranted Fresh." All very true and fair for the first year; but when these boxes of seeds are brought out year after year for many years, it is neither true nor fair. Many kinds of seeds will not vegetate after the first or second year. The only honest way is for the dealer to label his boxes with the year in which they were put up, leaving it to the purchaser to decide for himself whether or no they are "fresh" enough for his use. Test by sprouting a few of each lot.

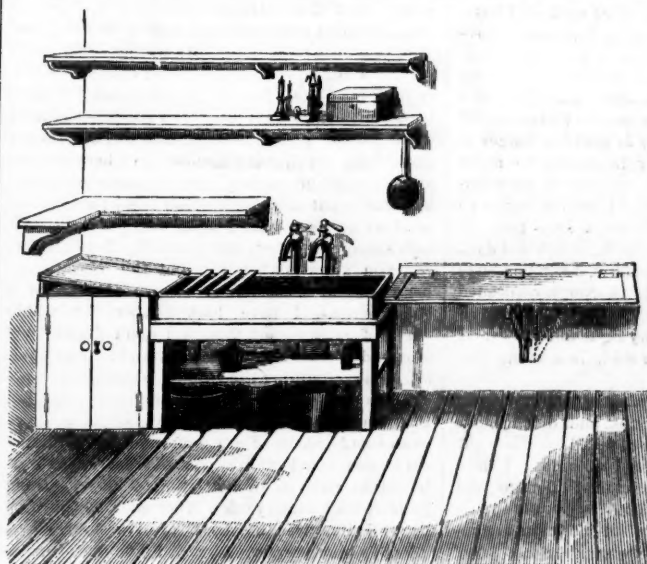
Propagating Hyacinths.

Hyacinth bulbs are imported from Holland, where large farms are devoted to their propagation. Our correspondent, F. Scholer, of Long Island, states that he can raise bulbs as good as the foreign ones, and nearly as cheaply as onions. Having some bulbs in which the heart, or central bud had decayed, he planted them in autumn, and found in spring, that numerous small bulbs were formed around each old one, in one case to the number of 34. These when taken up in July were found to be about the size of one's thumb; they were planted again in autumn, and the following summer when they were lifted, were found to be equal in size and quality to the imported ones. Acting on this hint, he afterward removed the central bud from bulbs by means of a knife, and succeeded in getting a crop of small bulbs. The experiment is easily tried, and we see no reason why, if sufficient pains be taken, good bulbs may not be as easily grown in our own gardens as abroad.

THE HOUSEHOLD.

How to Begin Housekeeping

"Molly Homespun" writes to the *American Agriculturist*: "Something more is required in house-keeping than recipes for cakes and cookies, though these are very good, but rather costly these times, with sugar at 30 cents a pound. I write for young housekeepers, and commence with the kitchen, the most necessary room in a house. Before going to housekeeping, the young wife should know just how much can be afforded to furnish the house with, and then commence at the kitchen, instead of the parlor; and every married woman, rich or poor, should know what is needed there for order and despatch. The kitchen should be as large as can be afforded. Next, have plenty of good soft water, if you can get it. Have a pipe come up over the top of the sink, with a faucet to draw the water from. Let the sink be large, and on one end have three or four slats nailed crosswise, to set dishes in to drain. This will save many hours labor in the course of a year, besides the wash and wear of a dish wiper,



A CONVENIENT KITCHEN SINK.

the washing of which is quite an item, if it is always kept clean; and allow anything else in the kitchen rather than a *dirty* dish-wiper. Have a board on one side of the sink to put the dishes on after draining. This will also be convenient for dishes while serving up a dinner, and will answer every purpose of a table to mix and iron on, and for many other little things which require a table." Our artist has sketched such a convenient arrangement, with one or two additions. Two faucets are represented above the sink. In many dwellings, arrangements are made for a flow of either hot or cold water, which is greatly desirable. A shelf under the sink is convenient for pots and kettles, and a small cupboard under the draining board will not come amiss. The waste pipe underneath has an "S" curve, or trap, to prevent a draught of foul air rising through the drain. The entrance to the waste pipe in the sink should be covered with wire netting, or perforated metal not easily rusted.

Economical Cooking.

How to live cheaply and at the same time healthfully, is a problem which many would be glad to solve. A few hints in this direction may be of service. Flour or some equivalent is an essential, but superfine wheat flour, for constant use, is not essential, and quite an item may be saved by purchasing wheat, instead of barreled flour, and having it ground without bolting. The use of this wheat meal a portion of the time, will conduce to health, and perhaps save another item in the doctor's bill. Rye flour is not near as expensive as fine wheat flour, and corn meal is considerably less also; it will pay therefore to use to some extent the good old fashioned rye and Indian bread. A very sweet bread may be made of corn meal alone, with no addition but pure water, if baked quickly in thin sheets. If you have milk to use with it, there are many excellent ways of preparing corn and corn meal, to accompany it, and this grain may properly be used largely in winter. Many have forgotten how people used to hull corn by the use of weak ley, and what an amount of good solid food may be prepared thus from two or three quarts of corn. New Dent corn makes excellent hulled corn, and eaten with cream and maple sugar, or with milk, or milk and butter, or cream alone, is good enough, and very nutritious. Butter and lard are very high; it may interest some to be reminded that butter-milk with a slight addition of butter or other shortening—that which comes from boiled beef should not be overlooked—makes a healthful and very good pie-crust. For pies, if apples are scarce, remember the pumpkins and squashes; good pumpkin pies can be prepared without eggs, by making the milk used, or a portion of it, into a flour por-

ridge before stirring the pumpkin into it. Custard pie may be made without eggs also, from milk flour porridge, by adding the necessary pastry and seasoning. Custards may be made in the same way, or with Irish moss, or rennet. Sump from Indian meal makes a very palatable pie in imitation of rice. Baked apples are a good and most wholesome substitute for pies, and they save sugar. Good cake may be made with thin sour cream and soda, without eggs, or butter. Mince pies, to be very good, need not have all the customary ingredients—dried berries may be substituted for raisins, and if you have blackberry pickles, try them—they are good. Green Hub-

bard squashes prepared as pumpkins are fixed for pies, are relished by some, and it is a very good way to use them up. Rutabagas cost much less than potatoes, per bushel, and are certainly good food. Beans are high, but they give more nutriment for the same money than many lower priced articles of food. Onions eaten with potatoes are a good substitute for meat. With plenty of vegetables, milk, and fruit, meats are not essential. Health and strength can be maintained without pork, notwithstanding the high opinion many have of its strength-producing quality.

How to Make Good Bread.

The subject of making good bread was pretty thoroughly discussed in the *American Agriculturist* last year, by various correspondents. But as we can scarcely have too much light on such a subject, and especially for the benefit of thousands of new subscribers, we publish the following plain and practical hints contributed by a lady who has always made her own bread, and made it good, for years:

"Of course we want good flour to begin with, and I always want some good potatoes, and hops also. Then I make what I call 'stock yeast' which I always take care to keep on hand, as it will keep good from four to six weeks—and I have kept it eight, but think it better not quite so old—it is easily done. It is made as follows: Boil two or three handfuls of loose hops in two quarts of water, one and one half hours, then strain the liquor on two tablespoonfuls of flour previously wet with cold water, to prevent its lumping; stir well and let it stand until milk warm. Add two thirds of a cup of yeast, let it ferment twelve or fifteen hours in a warm room, then bottle for use. Any sweet hop yeast will do to start the above, after which brew before you are out, and start from the same. Shake this yeast well when wanted to use.

I then make a ferment which I use to raise the bread, as follows: Wash clean, and boil soft, say two quarts of potatoes, mash fine with one half the quantity of flour while hot, reduce with cold water so as not to scald, add half a cup of stock yeast and let it ferment eight or ten hours or until it begins to fall at the top, when it is ready for use. It may be strained before or after fermentation. I usually strain it through a colander. It will be about as thick before fermentation as dough prepared for fritters. We may use any quantity of this we choose, as it has no bitter or unpleasant taste, of course the more we use, the quicker the bread will rise. This will keep in cold weather about two weeks, in summer not as long. Yeast and ferment should always be kept in a cool place ready for use; freezing or scalding will entirely destroy their virtue. In the evening I lay my sponge, using one third

ferment, one third water, one third milk—if I have it, if not, two thirds water—and a little salt. Cover with a cloth and let it stand in a warm place until morning, then knead until it works free of the hands and board. Let it rise again in the pans and bake. The sponge should be made a little too soft to mould, but the more flour is used the longer it will take to rise; in summer it should be made quite stiff. It should always rise until it has a delicate, silky touch to the hand, or until it begins to fall at the top, which is always a sure test. If worked too soon, the bread will be tough and dark colored, if baked without kneading, it will be coarse grained, while that which is thoroughly kneaded has an opposite appearance. A good loaf will always be fine grained, still very light and showy. I always keep my bread when cold, in a stone jar, then it does not get dry.

I have been married six years, have always done my own work unless I was sick, and during that time I can safely say I have not failed one time out of twenty five to have my bread all right. I have not used the value of half a pound of saleratus, and have never lost my stock yeast.

Out of curiosity I tried the hot bricks as recommended by "Hatt," in the July number last year. The bread was sweet, but not so bulky by one fourth, coarse grained, and not as good nor handsome—if I may use the expression—as if kneaded the second time, and I am quite sure it did not go as far. I think it better to use a little more 'leaven' and not quite so much force, at any rate I felt nearer 'Paradise' when I had seen the last of it and replaced one of my loaves on the table."

A Bachelor's Opinion of "Recipes."

The editor who usually attends to the Household department was much occupied just as matter was wanted to complete these pages; so he handed a large file of recipes, which had been contributed by the kindness of our readers, to one of his associate editors with a request that he would select some of the best and prepare them for publication. This associate is a bachelor, and as a matter of course, he thinks that he knows more about house-keeping and bringing up children than those who have tried both. He returned the documents with the following notes:—"Here you have at least a hundred recipes, and probably not five things fit to eat can be made from them. Well, that is probably about the usual proportion, as one of the best housekeepers in New York told me that she bought every new cook book, and felt quite contented if she could find five good things in each. Some of your recipes have been read, and others, like the bills in Congress, have been 'read by title and passed.' People are puzzled to know what shall be done with the leading rebel when caught. If it wouldn't be too cruel, I would make him try the different recipes that come to this office. He'd never rebel any more, I guess....Here is one for pork apple pie, and another for apple pork pie. No, I thank you. The sight of that big hog exhibited in the office of the *American Agriculturist* has been pork enough for the rest of my life. But, seriously, do people ever eat pork in apple pies?—do they put in any saleratus?—Here is a woman who sends a recipe for a pudding 'which can't be beaten.'—As there are no eggs in it, I don't see why it should be. Soda—soda—cream of tartar—saleratus—no, I won't publish any of these, and induce people to turn their kitchen into an apothecary's shop.—Here is a recipe to 'keep sausage meat.' The best way is to have no sausage meat, but if you do happen to have some about the house, lock it up in a chest and lose the key—or do any thing but eat it.—'Keeping eggs'—better keep hens and use the eggs.—I never saw an egg improve much by keeping.—Here is something about 'bread making.'—As we haven't said much on that subject, it would be well to publish this.—Pshaw! it has 'salt raising.'—Now how can people spoll flour in this way, and call it bread?—'Poor man's fruit cake.' Pray what business have poor folks with fruit cake?—but let us see what it is made of: flour, eggs, pork fat and

soda. That'll do.—If poor folks have pork fat and soda, let them make soap and take in washing, and then they won't be poor. My washerwoman gets a dollar a dozen, and dresses better than my wife—could if I had one. Poor folks' cake indeed!—'Rhubarb mince pie'—This must be a good idea.—I used to be foolish enough to eat mince pie, and then I had to take the rhubarb the next day; here the two are combined in one dose.—Oh! it means pie-plant, and that is out of season.—How can I publish any of these recipes; cake I never eat, puddings I abhor, sausages I detest, and mince pies I abominate, and you knew it when you put the job into my hands.—about as sensible as to turn a bull into a china shop. I have looked over the whole batch of recipes, and though I don't doubt they are good of their kind, it is the kind that don't suit me. The only thing the title of which tempts me at all is Johnny cake. I open the recipe, and find that though the mixture may be good, it is baked in an oven! Shade of my grandmother! a Johnny cake in an oven! Don't you see that when it is baked in an oven, though it may be something good, it isn't Johnny cake. That must be baked on the middle piece of the head of a flour barrel (Beach's brand preferred), with a hole in the north-east corner. The cake is placed on this, and set up against a flat iron in front of a bed of hickory coals, to bake, and nothing short of this can be Johnny cake—but as I sometime intend to make a cook-book, I won't say anything more about it.—If I do make a cook book, I won't have any mince pies, any sausages, nor cakes, nor puddings, nor anything sweet, nor any saleratus; but just you wait and see what I do put in."

All of which goes to show how "Doctors disagree," especially bachelors. Well, perhaps food that common folks find agreeable ought not to agree with a bachelor. At any rate, our readers will agree that our bachelor is *spicy* enough, and that the best thing he can do before writing his cook book will be to take lessons in a few first principles from some competent lady. At present we hand him over to the tender mercies of our fair correspondents. When time permits, some of their much abused but good recipes will be published.—ED. HOUSEHOLD DEPARTMENT, (whoever he may be.)

Household Notes for February.

Look to the children's boots and shoes which may be wearing through by this time. Do not allow them to go with damp feet. Whole boots are not always water-proof....Prepare spring and summer clothing, before the garden and dairy claim attention. Study what improvements can be made in the garden the coming spring, and by what means the products of the dairy can be increased in this time of high prices. Is the dairy room suitable? Is the water right? Do you understand the best methods of making butter and cheese? Give attention to the poultry. Can you not raise some very early chickens, for the table, for market, and for next winter's layers? Do not neglect the minds of your children. What advancement are they making at school? Give them home instruction. A blackboard is a very useful piece of household furniture, affording a means of teaching children many things, and furnishing them with pleasing employment. Teach them common things. Children are often very eager to learn about things around them, and if properly taught, will treasure up a great deal of scientific knowledge....Take the fresh air daily; do not let the cold weather make a drowsiness of you....Try and get some time to brush up the chambers of your own mind. Try to keep the heart young, warm, and bright, and the children cheerful by your own sunshiny presence. Do not let the "cares of this world" or the "deceitfulness of riches" cheat you out of the blessings of a glorious and eternal future.

SMOKY PRUNES may be made palatable by covering with boiling water, stirring them quickly, and draining it off. Do this three times in succession.

Practical Odds and Ends.

Sent by Subscribers to the *American Agriculturist*. Please send plenty more of the same sort.

GREASING DISHES, griddles, etc., for cooking is done most easily with a swab made by winding a strip of clean cotton cloth on the end of a stick, and fastening it with twine.

TO SAVE SUGAR IN APPLE SAUCE.—Use half sweet and half sour apples. After washing, soak them separately over night, then stew them in the same water in which they were soaked. Put in the sweet apples first, and when they are tender add the sour ones. *Mem.* Next fall dry plenty of sweet apples.

TO CLEAN BOTTLES.—Partly fill the bottle with soap suds, drop in one or two dozen tacks, or some small nails, and shake them up briskly.

SHOE STRING TAGS are apt to come off speedily. A blow or two with a hammer to bring the sides together will keep them in place.

BUFFALO ROBES.—A subscriber asks how they may be made soft and pliable after being wet and hardened. Will some one please inform us.

ITCHING from poisoning or other cause may be relieved by rubbing with cloths dipped in water as hot as can be borne.

DRIED APPLES may be easily removed from strings by cutting the knots at the ends, and soaking the fruit in water a short time. Such fruit should always be washed clean before cooking.

Hints on Cooking, etc.

Breakfast Corn Cake.—Contributed by Mrs. F. E. H. Kingsbury, Suffolk Co., Mass. Put 2 cups of Indian meal (or 1 of Rye and 1 of Indian), $\frac{1}{2}$ cup of flour, and $\frac{1}{4}$ cup of sugar into a dish, and add a good sized teaspoonful of saleratus. Stir them together a little, then stir in 2 cups of sour milk, the sourer the better, and bake in a shallow tin, or one two inches deep. As no eggs or shortening are used, this is very economical, and when rightly made, it is also a very nice cake.

Good "Nutcakes."—Contributed by Mrs. S. J. Damon, Plymouth Co., Mass. Mix 2 eggs, 1 cup sugar, 1 cup sweet milk, butter the size of an egg, 2 teaspoonfuls cream of tartar, 1 of soda, a little nutmeg, and flour enough to roll out. Cut in rounds, making a small hole in each, then drop them into hot fat and fry to a light brown.

Farmers' Cake.—Contributed by L. J. Farrand, Lamolle Co., Vt. Mix 1 cup of cream, 1 of sour milk, 2 of sugar, 2 eggs, 1 teaspoonful saleratus, and 1 of salt, with flour sufficient to make a good batter. This will make two fair sized cakes.

Improved Hasty Pudding.—Contributed by "R. A." Sift the meal and make a batter of meal and cold water. Heat water boiling hot, salted to taste, and gradually stir in the batter until just thick enough for the mush to hop and sputter while boiling hard. Let it boil from one to two hours over a slow fire; it burns easily, and is spoiled if scorched. Do not add any meal after the batter is all in. Make it free from lumps.

Unbolted Wheat Bread.—Contributed to the *American Agriculturist* by Mrs. H. N. Low, Salem Co., N. J. Mix one quart of warm water, a teaspoonful of salt, with fine wheat flour enough to make a thin batter. Let this stand uncovered over night. The next morning stir in half a teacupful of molasses, a tablespoonful of salt, and mix with unbolted flour into a dough stiff enough to knead without sticking to the pan. Let it rise moderately, mold it over, place it in a greased pan, and when entirely light, bake it about three quarters of an hour in a moderately hot oven.

Pickling for Hams or Beef.—Contributed to the *American Agriculturist* by D. Nice, Bennington Co., Vt. For each 100 lbs. of meat, take 7 lbs. coarse salt, 5 lbs. brown sugar, 2 ounces

salt-peter, $\frac{1}{4}$ ounce soda or saleratus, and 4 gallons water. Boil and skim the mixture, let it cool, and when cold pour it upon the meat, which should be weighted to keep it down. Leave common sized hams in pickle 4 to 5 weeks. Beef can be kept until used up, if the brine be scalded occasionally.

Baked Carrots are much sweeter than when boiled. A Hubbard squash when baked preserves its peculiar aroma and sweetness much better than when boiled. In northern latitudes it does very well as a substitute for sweet potatoes.

Soda Crackers. Contributed by Mrs. C. F. Noble, McHenry Co., Ill. Flour, 2 quarts; butter, 1 cup; water, 1 pint; cream of tartar, 3 teaspoonfuls; soda, $1\frac{1}{2}$ teaspoonfuls. Mix the cream tartar thoroughly with the flour; then rub in the butter, and add the water and soda together. Knead about the same as pastry for pie. Roll out a little more than an eighth of an inch thick, cut in squares, and prick them all over. Bake in a hot oven about twenty minutes or till dry. Wash the oven bottom clean, and put the crackers on it; for they will not bake well on tins.

Parsnip Croquettes.—Boil the parsnips until tender, and mash them. Flour a dish thickly, drop a spoonful of the parsnip on the flour, and roll it in the flour with a spoon until it is formed into a ball. Repeat this process until you have used up the parsnips. Have a frying pan of lard hot, drop the balls in, and boil a light brown. The lard must be boiling hot, and enough of it to float the balls. This is excellent, and has been eaten by those who thought they could not eat parsnips.

Codfish Balls.—"A Gratiated Reader" warrants the following to be superior: Soak and boil the fish, and pick it into small shreds the same as for ordinary fish cakes. This is to be done over night. In the morning boil and mash potatoes, and while warm mix well with the fish, and mix into balls. In the meantime have lard heating in a frying pan, and when this is boiling hot, drop in the fish balls, and cook to a light brown. The balls should be as hot as possible, or they will cool and then absorb the fat, which will spoil them. There should be sufficient lard for the balls to swim in.

BOYS & GIRLS' COLUMNS.

Something About Dreams.

The writer believes in dreams, that is after his own fashion. He does not believe that one can tell from dreams what is about to happen. Strange stories are told of things occurring after certain dreams, but nobody knew what the vision meant until after the event came to pass, so that the dreamer was no wiser than the people. Any one who should try to do business by following his dreams, would soon have no money to dream about. Of course we do not refer to the visions which the prophets had in olden times, but to the ordinary dreams which every body has. Our belief in dreams is, that pleasant ones are very desirable, that they amuse and recreate the mind during the hours of sleep. The poorest man may enjoy unbounded wealth for eight hours out of the twenty-four, if he be a good dreamer, and all things which the heart can desire may come without an effort. Thus at least one third of life may bring pleasure, and this is as large a portion of enjoyment as most men have.

A hearty meal shortly before retiring, very great anxiety, too heavy press of business, or whatever disturbs body or mind during sleep, will often bring torment to the dreamer. He will be attacked by wild beasts, or fall from precipices, or be drowning, or in some other terrible situation. Pleasant dreams usually attend sound health, a proper mode of life and a quiet conscience; all of which will add to happiness by day as well as at night. The most important dreams come when people are wide awake. Columbus dreamed in this way, that there was a Western world, and then he went to work to find it. Jefferson Davis and others dreamed that they could have greater power in a Southern Confederacy, and they are endeavoring to make it come true. Thousands of boys and girls, men and women, are every day dreaming of becoming rich or famous, but they do not go to work to bring it about, and so their dreams only make them discontented. Here then are three things to be noticed: 1st, daydreams are useful if they are to good purpose. 2d, bad dreams can, and should be dismissed; and 3d, to accomplish anything, dreaming must be followed by doing.

"If You Love Me, Lean Hard."

The Boston Recorder relates the following: "Miss Fiske, while in the Nestorian Mission, was at one time in feeble health, and much depressed in spirits. One hot Sabbath afternoon, she sat on her mat on the chapel floor, longing for support and rest, feeling unable to maintain her trying position until the close of worship. Presently she felt a woman's form seated at her back, and heard the whisper 'Lean on me.' Scarcely yielding to the request, she heard it repeated, 'Lean on me.' Then she divided her weight with the gentle pleader, but that did not suffice. In earnest, almost reproachful tones the voice again urged 'If you love me, lean hard.' This incident is worth a whole volume of commentary on the nature of true love, which is happiest when it can do most for the loved one.

Colored Men in the Army.

A friend recently returned from service with the Christian Commission in the Army of the Potomac, relates several amusing incidents of the colored men in and around the camp. One of them, a soldier, was on guard at the City Point wharf. Presently an officer approached, smoking a cigar. Politely giving the military salute the dusky sentinel said, "Smoking on dis dock is forbidden sah." Is that the rule, asked the officer?—"Yes sah."—"A very good rule," replied General Grant, for it was he, and he immediately threw his cigar into the river. A happy darkey was enjoying himself perched on a high fence when a squad of rebel prisoners passed, and John's former master was among them. "Why John," exclaimed he in surprise, "are you up there?" "Yes, massah," said John, "and you's down dere."—"One of them was heard earnestly praying, 'Lord bless Massa Lin-kum, and douse his head wid wisdom.'—Another thus gave the well known passage 'Paul may plant and Apollos water, but God giveth the increase.' 'Paul may plant and polish wid water, but it won't do.'"

Sheridan Among his Soldiers.

A gentleman recently from Winchester, Va., relates the following incidents which he witnessed just after the famous battle of Cedar Creek, where Sheridan had turned disaster into an overwhelming victory.—The wounded were being brought in and attended to by the surgeons. A soldier was having an arm amputated; chloroform had been administered to render him insensible to pain, but he recovered consciousness just as the surgeon was sawing through the bone. Yet without seeming to pay any attention to this, he looked around and exclaimed, "Boys isn't Phil Sheridan a perfect brick? Didn't we give it to the Johnny's?" and his eye lighted up with the fire of victory. Not far from him our friend noticed two whose wounds had been dressed, (one had lost an arm, the other a leg,) lying face to face on adjoining cots, earnestly discussing the events of the battle and praising "Phil" Sheridan, with whom and for whom they both wanted to fight again. The same enthusiasm pervaded the entire hospital, and the groans of the suffering were hushed by the exulting shouts for their leader and their success.

Petroleum—How a Farm was Sold.

A correspondent of the American Agriculturist gives an account of an instance of pretty "sharp practice" in the oil region of Pennsylvania. A widow, who owned a farm in a locality bordering upon, or rather within the bounds of Petrolia, procured a barrel of the genuine oil, and poured a few gallons upon the surface of several small ponds of water on her domain. The barrel was then secreted in some brush near a small rivulet, and a minute opening was made, so that a few drops constantly escaped, and floated down upon the surface of the water. The bait soon took with one of the roving seekers after hidden wealth, who contracted for the farm, hastened East, raised a company, and returned with ample funds to pay \$100,000 for the farm, and to begin operations. The widow, of course, found it convenient to immediately change her residence to an eastern city.—The unusual sequel of the story, which we can not vouch for, is, that by chance, this turned out to be a capital oil farm, and is yielding large returns to the company.

Answers to Problems and Puzzles.

The following are answers to the puzzles, etc., in the January number, page 23. No. 111. Illustrated Rebus.—Do nought leaves on g two birds a l one nor bee eye t of sol two flowers; or Do not leave song to birds alone, nor beauty of soul to flowers....No. 112. A Curious Word.—Cares; add s, and it makes caress....No. 113. Novel Subtraction.—Should have been take two letters from a word containing five, and leave but one. The word is stone; take away st and one remains....No. 114.—Charles H. Thorp, sends the following solution. Ten acres is a plot measuring 660 feet on a side. As no vine is set nearer

than one foot to the fence, they are to occupy a plot 658 feet square. 658-6 gives 109 spaces between the vines or 110 vines on a row, and 110 rows if they are set in square form. 110x110 gives 12,100 vines for the plot when planted in square order.—In the Quincunx order there will be 110 vines on each row one way. The distance between the rows will form the perpendicular of a right angled triangle having a base of 3 ft., and a hypothenuse of 6 ft., or 5 and 2 tenths feet, nearly. 658÷5.2 gives 126 spaces or 127 rows the other way. 110x127=13,970 vines in Quincunx order, or 1570 more than in the square....No. 15. Mathematical Problem.—99 ft. 10 in. and 118 ft. 5 in....No. 100.—Mathematical Puzzle (Dec. No. page 349).—The word is Palmetto; the figures are 587019x3824=2127356856. The following have sent in correct answers up to Jan. 10. "Exepo," 103; David Dickey, 103; B. T. Fisher, 103; Flora McKay, 103; Austin Leonard, 103, 109; "C." Phila., 103; I. A. Mitchell, 103; Mary E. Graves, 103, 109; John S. Starbuck, 103; H. Hudgens, 103, 109; Geo. W. Read, 109; H. G. Kingsleys, 103, 110; J. G. Bunnell, 103; Wesley Harvey, 103; "R. N. M.," 103; Charles L. Gartman, 103; Ezra M. Smith, 103, 109; "H. P. S.," 109; R. M. Leete, 109; Elias Stevens, 109; Daniel S. Carver, 103; Clarkson Johnson, 109; E. Bishop, 103, 109; Eliza Gillingham, 103; Augustine J. Pocock, 103; Philip Lounsberry, 103; J. Madison Santee, 103; O. B. Gibson, 109; Atherton Sweett, 109; H. P. Smith, 103; A. S. D. Demarest, 103; Mary Lovejoy, 103; Edward A. Down, 103; David H. Trently, 103; J. C. Browning, 109; Mary N. Rice, 103, 109; Samuel C. Carter, 109; C. Arthur Totten, 103, 109; S. Faquer, 109; Olyvia Lybarger, 109; John N. McGiffert, 109; F. H. Brown, 103; "X. L. T.," 109; W. C. Sharpe, 109; "Grace," 103; Laura Williams, 103; Surges Green, 109; E. W. Miller, 103, 109; Susie Maxwell, 103; R. F. Maxwell and Zachary Taylor, 103; Nettie Robinson, 103; James W. Logan, 103; Amelia W. Thompson, 103; H. F. Brayton, 109; Joseph Holsinger, 109; E. J. Davis, 103; Robert Schofield, 103; S. H. Grundy, 103; S. B. Barker, 109; Joseph Smith, 109; George Tomlinson, 109; Cordelia Baker, 103; Wm. E. Baldwin, 103; "L. S. F.," 103; Sarah and Orpha B., 103; Clarence U. Meigs, 109; Rufus G. Fuller, 103; J. B. Burt, 103; D. R. Hosterman, 103; H. Zavala, 103; J. S. Burgess, 112; Duane W. Wilber, 112; Edm'd P. Barker, 109; J. W. Winans, 109, 114, 115; J. B. Hatch, Jr., 112.

New Puzzles to be Answered.

No. 116. Historical Questions.—1. What General took the City of Dublin, A. D., 1116? 2. On what day did James take possession of the throne of England? 3. What was the first name given by Europeans to Maine and New Hampshire?

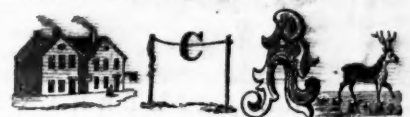
No. 117. What fruit is mentioned in the Bible as growing on a stick without root or branch?



10 Bab - G

No. 118. Illustrated Rebus.—Adapted to the times.

No. 119. Mathematical Problem.—Proposed by Chas. F. Erhard, Queens Co., N. Y. A race course forming a perfect circle is just one mile long along the centre line of the track, which is 20 feet wide. The enclosed circular piece of ground has a good crop of grass, and this has been bought by 3 men paying equal shares. They wish to divide the land in three equal parts by two straight parallel lines. How is this to be done and how many acres will each part contain?



No. 120. Geographical Rebus.—What four Capital Cities are represented in the above engraving?

No. 121. Mathematical Problem.—Suppose a heifer, at three years old, produces a calf, and one yearly afterwards, till she is twenty years old. Suppose her progeny to be females (through all the generations), and that each individual increases as the mother did, that is, a calf each year, commencing at the third, what will be the number of the herd when the old cow is twenty years old?

No. 122. Mathematical Rebus.—Contributed to the American Agriculturist by "William," Kirkland, N. Y. Please read it and find the answer to the problem.

I O 2 A A V & 000
O X 2 B & I X T U n 2 D
Now let 2+4=6 scholar & c
How T H E 7+2=9 I O u n 2 the 3.

No. 123. Conundrum.—Why is Neptune like an Alchemist? This will require a good deal of guessing.



THE FISHERMAN'S RETURN. — Engraved for the American Agriculturist.

Our young friends at the West may not take in all the meaning of this beautiful picture, at first sight. The scene will be familiar to the boys and girls in 'Nantucket, Cape Cod, and all along shore' away up to Nova Scotia, Cape Breton Island, and Newfoundland, where thousands of the *Agriculturist* family live. Many of their parents are fishermen. Instead of wheat-fields, meadows, pastures and woodlands, rich in grain, cattle and game, they love to plow the blue fields of the sea, with schooner and sloop, where the cod, mackerel, herring and their finny neighbors yield both sport and gain. But it is not all sport. No farm labor is harder or more unpleasant than that performed by the fisherman. It is no easy task to pull up a ten to twenty pound codfish from seventy feet below the surface. The excitement might make it pleasant for a few times, but to keep at it all day is harder than chopping wood or hoeing corn: neither is it very agreeable to pull the nets in which the smaller fish are caught. Add to this the frequent dangers from storms, fogs and icebergs, and most boys would prefer a life of less hardship.

Those who are brought up to the business, grow strong and hardy enough to bear the severe exposure and toil without flinching; their frames are tough as white oak, and the palms of their hands as hard as sole leather. But this does not make them hard-hearted. The picture shows this, and everybody, east, west, north or south, can understand and enjoy the affection which sparkles in the eyes of the children, and gives real beauty to the rugged face of the father.

The Stain on the Carpet.

Mary, an orphan, was hired by a lady to help do housework. "I pity you" said a girl whom she met coming from the door, as she was going to her new place. "Why?" asked Mary—"She's just the most particular body you ever saw. She turned me away only because I spilled a little oil; but I wouldn't stay if I could." Just then the door opened, and the girls separated, one to look for a new situation, the other with many forebodings to commence service. The parlor door was partly open as

Mary entered the hall, and she overheard the lady of the house exclaim "If it wasn't for servant girls I might have some comfort, I do believe they are all alike!" The poor girl's heart sunk within her, but she immediately resolved that she would try and prove that one at least could be faithful. During the morning she was sent up stairs to sweep a room. In moving the furniture she overset a small bottle which had been carelessly left near the edge of a table; it fell to the floor, broke, and spilled some ink on the carpet. She stood aghast. What could she do? She hastily gathered up the pieces, threw them out of the window, wiped up the ink, and then stopped to think. "She won't see it very soon, and when she does she may think it was the other girl," was the first thought. "But you did it, and you ought to tell her of it," whispered conscience. "I'm sure she'll turn me away, what shall I do?" "Go and tell her; you can't help the stain on the carpet, but you can keep the stain of a lie from your soul," said conscience. "Yes, and I will," said Mary aloud, and without stopping to think further, she went to seek the lady whom she met coming up stairs, and to whom she related the accident. "I believe I can trust you Mary," was the reply, so kindly made, that the girl could not keep back her tears. "You are the first girl I have had," continued the lady "who would confess a fault, and I hate deceit. Try and be careful, but above all, be truthful." Mary did not forget the lesson; she kept her place until her marriage several years afterward, and found that though her employer was strict, yet she had no better friend. When tempted to untruthfulness to hide a fault, let our young readers remember the "stain on the soul," and dread that more than any bodily punishment feared.

Fireside Games.—

A PHONETIC PLAY.—At a recent evening gathering we saw an amusing illustration of the effect of a combination of sounds. The company of some twenty or more was

divided into three sections. To the first section was given the syllable *Ish*; to the second *Ash*; and to the third *Osh*. At a signal, (the striking together of the hands of the leader, after counting three,) each division pronounced its syllable in a loud voice, so that the three syllables were uttered at the same instant. The result was a sound like a tremendous sneeze by one person.

THE GOSSIP'S SURPRISE.—This game is best played by a large company, but it will afford amusement to eight or ten. The leader *whispers* a short story, in the ear of his next neighbor, containing as many different particulars as possible. The one who heard the story now repeats it (in a whisper as before,) to his neighbor, aiming to tell it correctly, but in different words; and so it is passed around the entire company. The last one who heard it then repeats it aloud, after which the leader gives the story as he started it. The strange differences which sometimes appear, show how careful every person should be in reporting what he has heard, particularly if it is calculated to injure the character of another,

Advertisements.

Advertisements, to be sure of insertion, must be received **BEFORE** the 10th of the preceding month.

N. B.—No Advertisement of Patent Medicines or secret remedies desired. Parties unknown to the Editors personally or by reputation, are requested to furnish good references. We desire to be sure that advertisers will do what they promise to do. By living up to these requirements, we aim to make the advertising pages valuable not only to the readers, but to the advertisers themselves.

TERMS—(cash before insertion):

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One half column (74 lines), \$65 each insertion.
One whole column (148 lines), \$120 each insertion.
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French and German Asters, Rose and Camellia flowered Balsams, German, Ten Week, Intermediate and Brompton Stocks, Larkspur, Alpine Plants, Dianthus, Everlasting Flowers, Hollyhocks, Impatiens, Jacobaea, Lupinus, Marvel of Peru, Nemophila, Ornamental Grasses, Ornamental Gourds, Portulaca, Petunias, Schizanthus, Pansies, Scabiosa, Tropaeolum, Wallflowers, &c., &c.

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All of the seeds named in the Catalogue will be mailed post-paid to any address in the loyal States, upon receipt of the price annexed.

THE ELEVENTH EDITION of his celebrated SEED CATALOGUE and GUIDE TO THE FLOWER AND KITCHEN GARDEN, beautifully illustrated, will be mailed to all applicants enclosing 25 cents. Address as above.

Choice Seed.

With the return of another season I would invite the attention of the public to my Annual Catalogue of reliable Garden Seed, including over 200 varieties, many of which are of my own raising. I would call particular attention to the following list of new, rare or very desirable vegetables: Cannon Ball Cabbage (new, early, the heads are as round and about as hard as a cannon ball); Marbled Mammoth Drumhead Cabbage (the largest in the world)—Steele's Mason Cabbage (the best of all winter cabbages, put up in half oz. packages, and sold by the pound if desired)—Learman's Mammoth Cauliflower (the largest of all)—Mammoth French Squash (weighs from 100 to 250 lbs.)—Mammoth Sweet Corn (the largest sort known, selected from ears weighing from three to five pounds, very sweet, excellent for the table)—Yokohama Squash (new from Japan)—American Turban Squash (new, the driest, sweetest and best of all full squashes, first rate)—Striped Gaudaloupe Egg Plant (quite ornamental)—New York extra large purple Egg Plant (the largest of all varieties)—Ornamental Kale (several varieties in one package; fine for either the flower or kitchen garden)—Pierce's American Cauliflower (the standard late sort in Boston Market)—Early Paris Cauliflower (imported seed, the best early sort)—Walt's New Alma Cauliflower (a popular new English variety)—Early White Japan Melon (new, very sweet, about 10 days earlier than Walt's Early)—Mexican Sweet Corn (the sweetest of all varieties of table corn)—Golden Sweet Corn (an early, prolific, sweet table corn, of a bright golden color, fine)—Hubbard Squash Seed (true; I introduced this)—Cow or Tree Cabbage (for stock)—Yard Long Bean—Extra Early York Tomato (very early, very prolific, of good size and excellent quality)—Cook's Favorite Tomato (a very early apple tomato, prolific, of excellent quality)—Yellow Lupins (the plant so highly recommended for subsoiling in a recent Patent Office Report—also highly ornamental)—Tom Thumb Pea (very early, grows 10 inches high, very productive)—Drew's New Dwarf Pea (new, very dwarf, very prolific, peas egg shaped, each plant forms a bush, but one pea being required to about one foot of row)—Brown's New Dwarf Early Marrowfat Pea (a new variety which may be relied upon, as both the earliest and most dwarf Marrowfat grown; very prolific)—Improved Long Green Cucumber—Six finest varieties of Cabbage Lettuce in one package. True Boston Curled Lettuce (the most elegant of all, quality good)—Ornamental Gourds (many varieties in one package)—Spotted Silesia Bean, Concord Bean (a new pole bean, remarkably early, quality first rate)—Extra Flat Beet (new, very early, about as flat as a turnip, quality excellent)—Chick Peas (two sort mixed; extensively used in Europe as a substitute for coffee)—Chinese Sugar Cane (imported seed) New Jersey Hybrid Cucumber (one of the largest and best varieties cultivated)—Lester's Perfected Tomato (very large and thick meat)—Sutton's Student Parsnip (new, recently originated in England, desirable)—Chinese Rose Winter Radish (decidedly the best of all the winter sort, an acquisition)—Hood's Dwarf Imperial Purple Celery (new, superior)—Indian Chief Bean (a pole bean; can be used as a string bean much better than any other variety; very productive).—Each of the above at 15 cents per package. Catalogues sent gratis to all. Those who received it last season will receive it this without writing for it.

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Tomato, Extra Early; Early Apple, p.k't.	30	1 00
" Lester's Perfected; Favorite, p.k't.	10	
" New Erect French, grows upright like a bush; fine flavored, very ornamental p.k't.	10	

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Propositions for the formation of clubs, by which all can obtain vines at wholesale prices, with other advantages, will be sent for a stamp. The propositions may accompany the price list and twenty-four page pamphlet or any of the catalogues, without cost of stamp; and I would invite the attention of every purchaser to them for their great advantages. The excellence and importance of the new kinds, Iona and Israella, are now so well understood and appreciated that there is but one voice in regard to them, and that of earnest, enthusiastic praise from all quarters where they are known. These can be very cheaply obtained by clubs who buy not less than fifty of the vines. Early orders are necessary to secure the best plants.

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These engravings are furnished only as premiums with Iona vines. For particulars see propositions to clubs. As our artist was able to complete but a limited number, we can not agree to furnish them throughout the entire season. All who are desirous of securing them to aid in canvassing will do well to send an early remittance, according to one of the "special propositions."

HAS THE EARLY RIPENING OF THE IONA AND ISRAELLA GRAPES BEEN OBTAINED BY ANY FORCING APPLIANCES OR BY ANY OTHER MEANS THAN THAT OF ORDINARY CULTIVATION IN GARDEN OR VINEYARD?

A communication has appeared in the Ohio Farmer, signed "Peconic," but acknowledged by Mr. H. P. Byram, and another in the American Agriculturist, in which he states that "to his own personal knowledge the early ripening of both these kinds is obtained by a forcing process, by which their maturity is hastened by three weeks." After having been shown that his statements were utterly false in every particular, he persisted in refusing to make any retraction, and I found myself under the painful necessity of prosecuting him for both communications. I would here state that both of these kinds have always been grown in full exposure in the open ground and in the ordinary manner, without any forcing appliances whatever. They have always been open at all seasons, and at every stage of growth, and continue to be, to the inspection of all who desire to see them. For a full account of the whole treatment and management of every one of these vines on the island, with two engravings, send stamp.

For Club Propositions send two cent stamp.

For Price-List and accompanying Twenty-four page Pamphlet send two-cent stamp. This contains a description of the stock of Vines for sale at Iona, with some account of our four best hardy kinds, with a very valuable Chapter entitled, "What Kinds to Plant; or, Grapes for Family and Dessert," by Mr. Mead. It states clearly the distinctive advantages of the Israella, and also those of the Iona, and its superiority over every other native grape, and gives the full history of the manner in which they were produced; in which will be found hints for the production of seedlings in general, and of grapes in particular. It contains also a full account of the management of all of these vines from their first bearing to the present time, with full tables of contents of the Descriptive and Illustrated Catalogues.

The Descriptive Catalogue is sent for ten cents, and the Illustrated for twenty-five cents.

These two bound together in flexible paper-covers, and called "Manual of the Vine," are sent for fifty cents.

The Descriptive exhibits the principles and general considerations which form the basis upon which Grape-culture is to be successfully conducted, and is illustrated with many very fine and life-like Engravings. It also contains full and accurate descriptions of all our native kinds that are worthy of notice, with a clear representation of their relative value with a chapter on "Wine Making." Also a lecture by Mr. Mead.

The Illustrated (eighth edition) treats thoroughly of practice and of practical results, illustrated with about eighty engravings. The two together constitute the most thorough, practical and comprehensive treatise on the Vine in the language. The conditions of the full measure of success are clearly stated, and the precise manner of performing every operation is so clearly shown as to be easily intelligible to every reader. C. W. GHANT,

Iona (near Peckskill), Westchester Co., N. Y.

LANE'S PURCHASING AGENCY.

HARVEY B. LANE,

151 Nassau-street, New York.

Fresh Onion Seed.

Extra Conn. Seed Leaf Tobacco Seeds.
Choice Garden and Flower Seeds.DOTY'S CR8 CLOTHES
WASHERS.

Family Size \$12.

Hardy Fruit for the North West!

Would you learn the hardy, early bearing, most productive sorts of fruit, how to plant; also the hardy Ornamental Trees and Shrubs as tested in 23 years' nurserying at the West? Send 2 red stamps for the (1885) Catalogues of the Blooming-ton Nursery—13th year, 230 acres of Fruit, Ornamental and Nursery Stock—Root Grafts, Stocks, Cuttings, Scions, Fresh Apple (\$8 50 bush), and Pear Seeds (\$3 50 bu.), Green-house, Garden and Bedding Plants.

Apple and Pear Trees, Dwarf and Standard, an immense Stock, Plum, Cherry, Peach, Apricot, Nectarine, Small Fruits.

Grapes,—15 acres, including Adirondac, Iona, Israella, Creveling, Allen's Hybrid, 7 of Rogers' Hybrids, Norton's Virginia, Union Village, Hartford Prolific, with superb bearing layers of Delaware and Concord, 1 year Catawba per 1,000, Early Richmond and Osage Orange in moderate supply.

Evergreens,—20 acres mostly medium and small sizes, Ornamental Trees and Shrubs. **Roses,**—Over 4 acres of over 400 sorts, many very new—few better stocks and collections. Dahlias, Philox, Chrysanthemums, Gladiolus, Lilies, &c. Five large Green-houses with frames covering over 10,000 square feet of glass are used.

Packing by all routes carefully done in moss.
Prices reasonable. Terms cash.
BLOOMINGTON, ILL. F. K. PHENIX.

30,000 CONCORD GRAPE VINES.

No. 1, One Year old, \$10 per 100; or \$90 per 1000.

2, \$8 per 100; or \$70 per 1000.

2 Year old, \$10 per 100; or \$180 per 1000.

Delaware Grape Vine Layers, \$5 per doz.
Union Village, \$6 per doz.

ROGERS' HYBRIDS.

No. 4, 15 and 19, we have fruited the past 3 years, and they have done finely.

We have also No. 1, 2, 3, 30. Price \$9 per doz.

GEO. SEYMOUR & CO.,
South Norwalk, Conn.

Evergreens! Evergreens!

We have an immense stock of NORWAY SPRUCE, BALSA M FIRS, SCOTCH AND AUSTRIAN PINES, AMERICAN ARBOR VITAE (White Cedar), SIBERIAN ARBOR VITAE, &c., &c., from small to large sizes. All have been transplanted once, and the larger sizes two to three times in the nursery, so that success is ensured in planting. They are offered at LOW RATES per doz., per 100, or per 1,000, and prices will be given, packed in a superior manner, delivered at Depot in Rochester, or otherwise.

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Copartnership Notice.

The undersigned, have this day entered into a Copartnership, under the name and firm of BRILL & KUMERLE, for the purpose of carrying on a General Seed and Nursery Business, in the establishment formerly conducted by the late Geo. C. Thornburn, Seed Store and Warehouse, 133 Broad-st., Newark, New Jersey.

FRANCIS BRILL,
Seedgrower and Nurseryman,
JOHN U. KUMERLE, Seedsman,
formerly with the late Geo. C. Thornburn.
Address orders for Catalogues, &c., as above.

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Catalogues of GENUINE Garden, Field, and Flower Seeds, &c., Fruit and Ornamental Trees, Shrubs, Vines, STRAWBERRY Plants, &c., &c., furnished free to all applicants. Address
BRILL & KUMERLE, SEEDSMEN, &c.,
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SEEDS FOR 1865.

Our stock of Seeds for 1865, carefully grown expressly for our trade, embracing all the valuable varieties of Vegetable, Flower, Fruit and Ornamental Tree Seeds, is now nearly complete, and all orders will be promptly and faithfully attended to.

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189 & 191 Water-st., New-York.

SEEDS!

The subscriber has now in store, his usual supply of fresh and genuine GARDEN VEGETABLE, FIELD AND FLOWER SEEDS.

New priced Catalogues, on application.

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20 BUSHELS OF PRIME APPLE SEED

the growth of 1864, for sale at \$5 per bushel.

JAMES A. ROOT, Skaneateles, N. Y.

SEEDS OF ALL KINDS BY MAIL. B. M.

WATSON, Old Colony Nurseries, Plymouth, Mass.

Connecticut Seed Leaf Tobacco Seed.

Be sure and get the Best.

A superior lot raised expressly for the subscriber by one of the most successful cultivators in the Valley of the Connecticut—Packets with full directions for culture, curing, packing, &c., will be mailed, post-paid, to all applicants at the following rates: 1 ounce, 50 cents; 4 ounces, \$1.50; 1 pound, \$5. Address B. K. BLISS, Springfield, Mass.

Choice Tomato Seeds.

"THE COOKS FAVORITE," very solid, smooth, good for early or late use, 25 cts. per paper, also EXTRA EARLY, FEJEE ISLAND; and Dwarf or Tree Tomato Seeds, each 10 cts. per paper. For a full list of VEGETABLE AND FLOWER SEEDS, See DREER'S GARDEN CALENDAR FOR 1865, now published and forwarded on receipt of a postage stamp.

HENRY A. DREER, SEEDSMAN,
714 Chestnut-st., Phila., Pa.

Goodrich's New Seedling Potatoes.

I shall send out in early Spring for the late Rev. Chancey E. Goodrich's family the three new varieties, the Goodrich Calico, the Early Goodrich, and the Gleason. The first two will be sold at \$1.50 per peck, each, or \$5 per bushel, while the Gleason will be \$2 per peck. Cash orders will be filed and filled strictly in the order received until the limited stock of tubers is exhausted, when the public will be informed. No charge for package nor cartage.

D. S. HEFFRON, Agent, Utica, N. Y.

WANTED—Every reader of this paper who owns a farm or garden to try Goodrich's Seedling Potatoes this year. Reports from Maine to Wisconsin this season fully confirm all claimed for them in last vol., page 106. All who want good table potatoes, hardy and productive should try them. 4 lb. packages by mail. A cheap and PAYING investment; avoids exorbitant express and freight charges and delays. For circulars of terms, testimonials, &c., apply immediately to E. WILLIAMS, Mont Clair, N. J.

New Crop Onion Seed.

The following varieties will be mailed, post-paid, during the month of February, upon receipt of the price affixed:

	Per Oz.	4 Oz. Pound.
Yellow Danvers Onion.....	50 cts.	\$1 75 \$6 00
Yellow Dutch Onion.....	45	1 50 5 00
Red Wethersfield.....	45	1 50 5 00

Address B. K. BLISS, Springfield, Mass.

Fruit and Tree Seeds.

Pear Seeds \$3.50 per lb. Norway Spruce, \$1.50 per lb., and many others. See Catalogue gratis.

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FLOWER SEEDS BY MAIL—The subscriber raises about one hundred kinds of Flower Seeds, selected from over one thousand varieties, of the most showy and attractive. He will furnish, neatly put up, any 32 kinds on the list for \$1, and send by mail, with postage prepaid.

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By Mail. The New Strawberries, Grapes, Currants, &c.

Priced descriptive list will be sent to any address.
B. M. WATSON, Old Colony Nurseries, Plymouth, Mass.

Five Hundred Thousand
(500,000.)

CRANBERRY PLANTS,

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Send for Circular on the Cranberry Culture.

CRANBERRY PLANTS in great variety, send for Circular. 2,000 Concord grape vines 1 to 4 years, strong bearing vines. Grafting Wax in 1, 2 and 3 lb. Rolls, for retelling, a superior article prepared by F. TROW-BRIDGE, Milford, Conn.

THE TRUE CAPE COD CRANBERRY for Spring planting, for Upland and garden culture, and for swamps. Under my method of cultivation the yield last season on Upland was over 400 bushels per acre. Explicit directions for cultivation with prices of plants, with nursery catalogue complete, will be sent to any address.

B. M. WATSON, Old Colony Nurseries, Plymouth, Mass.

STRAWBERRY PLANTS for sale. Five of the best varieties of plants for cultivation, viz.: Russell's Prolific and Buffalo Seedling at \$2 per 100; French's Seedling at \$5 per 1,000; Cutter's Seedling and Downer's Prolific at \$3 per 1,000. Also other varieties at reduced prices.

For sale by THOS. C. ANDREWS,
Moorestown, Burlington Co., N. J.

AGENTS WANTED for sale of Trees, Plants and Seeds, in all the loyal States. B. M. WATSON,
Old Colony Nurseries, Plymouth, Mass.

MY SMALL FRUIT CATALOGUE contains a description and price list of varieties, and instruction for growing strawberries, &c., &c. Send for a copy.
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SWEET POTATO SEED—Improved Nansemond Seed potatoes for sale in lots to suit purchasers. J. C. THOMPSON, Tompkinsville, (Sutton Island) N. Y.

DWARF BROOM CORN SEED—I will send the genuine Dwarf Broom corn seed, post-paid, at the following rates, 1/2 bushel, 1 lb. \$1, 5 lbs. \$5, 10 lbs. \$5. ELIAS REED, Waterville, Lucas Co., Ohio.

CREVELING VINES! 6000 first quality, one year old, \$5 per doz.; \$30 per 100, \$250 per 1000; 5000 2nd quality, \$20 per 100; \$175 per 1000, for spring of 1865.
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DWARF BROOM CORN SEED FOR SALE—Warranted a pure article. Address W. HARKER, Macomb, Macdonough Co., Illinois.

Onions and How to Raise Them.

What soil is best; how to prepare it; how to manure it; how to tell good seed from bad; how to plant it; how to grow onions from seed, potato onions, onion sets, shallots and top onions; when to pull onions; how to store them; how to prepare for market, and when and where most profitable to market them; what onions to select for seed, and how to grow it, and a hundred minute details as valuable to beginners, with many facts relative to peculiarities of onion raising in the Southern, Eastern and Western States of value to old growers. Illustrated with original engravings of the "Dave Warren" Onion, Early Crocker Onion (new), Red Wethersfield and Potato Onion, Sowing and Weeding Machines. In paper covers, forwarded by mail, prepaid by the subscriber at 30 cents each. Seedsmen and Booksellers supplied at wholesale rates. JAMES J. H. GREGORY,
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STRAWBERRIES—The favorable weather last autumn enables me to offer plants of fine quality at prices that cannot fail to give satisfaction. Also Grapes, Currants, Raspberries, &c. The Lindley Raspberry is HARDY PRODUCTIVE, EXCELLENT and VERY PROMISING. Fine plants by the dozen or 100. For prices, etc., address
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Ten of the best varieties for sale at the lowest rates. Price list sent free to all applicants. Varieties warranted true to name.

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CUTTINGS of the GENUINE White Willow, for sale at low rates in large or small quantities. Address M. ALLEN, "THE WILLOWS,"
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TO FRUIT GROWERS—The Gothic Fruit Box Company invite attention of Fruit growers to their Patent Fruit Box, on Exhibition at the Office of the Agriculturist. For Circulars, giving full description and prices, Address H. B. LANE, 151 Nassau-st., New-York City.

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LANDS IN THE WHOLE WEST, ARE THOSE OF NORTHERN MISSOURI.

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IN NEW JERSEY.

THE SUBSCRIBERS WILL SELL TRACTS OF GOOD Land for farming and market gardening, in quantities to suit purchasers, situated in the counties of Ocean and Burlington, on the line of the Raritan and Delaware Bay Railroad, midway between New-York and Philadelphia, at \$10 per acre. In addition to all the common products of a farm, these lands are valuable for growing cranberries, sweet potatoes, peaches, grapes, tobacco and hops. All crops ripen ten days earlier than on Long Island. Squantum marl is delivered at any point on the railroad at one dollar and fifty cents per ton, and fertilizes the land for seven years after its application. The lands are mostly covered with yellow pine timber, suitable for lumber and cord wood. A portion of the timber has been recently cut off, leaving the land ready for immediate cultivation. Price of cedar rails, \$5 per 100. Cord wood, at any railroad station, \$3 per cord. A portion of the lands contain a large quantity of the best potters' clay yet discovered, for the manufacture of yellow ware. Saw-mill within one mile of Shamong Station. A good hotel at Shamong, on the lands offered for sale. The location is very healthy and water excellent. Lands well watered with unfailing streams, and supplied with good mill-sites and water-power for manufacturing purposes. The whole purchase money may remain on mortgage for a term of years if desired, if the purchaser cultivates the land.

For further particulars apply to

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TO OWNERS OF FARMS and country residences. One of the best plans to sell is to register your property for sale, with the price, terms, how far depot, &c., with J. Q. FOWLER, No. 47 Cedar-st., New-York; and if you want to purchase, is the very best place. It gives his special attention to buying and selling country property. Will attend to the advertising and selling of all property that is to be sold at auction.

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Auctioneer and Real Estate Dealer,
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Acres at low prices and accommodating terms.—Franklinville Tract—Gloucester County, New Jersey, 25 miles south of Philadelphia, on Railroad running from Philadelphia and Camden to Cape May. In lots to suit purchasers. Circulars with reports of Solon Robinson, Hon. Wm. Parry, and others, with full information, sent free by addressing JOHN H. COFFIN & CO., Franklinville, Gloucester Co., New-Jersey. Also Improved Farms from 20 Acres upward.

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We are agents for the sale of nearly

Four Hundred Farms

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No. 43 Lexington-st., (up stairs) Baltimore City, Md.

FOR SALE AT A BARGAIN—A FARM containing 80 Acres, 60 under fence, 20 Acres young Timber, Dwelling House and Barn, 1/2 mile from R. R. station and Village, fronting a Turnpike, only 50 dollars per acre.
J. H. COFFIN, Franklinville, Gloucester Co., N. J.

FARMERS HAVING FINE HORSES to sell in spring, which can be fully recommended for gentlemen's carriage horses, can find ready sales, at good prices by addressing with full description, J. Q. FOWLER, 77 Cedar-st., N. Y. City. N. B.—Only a reasonable commission charged.

PREMIUM CHESTER WHITE PIGS for Sale.—For Circulars and prices, Address N. P. BOYER & CO., Gum Tree, Chester Co., Pa.

THE IONA AND ISRAELLA VINES,

And matters connected with them of Importance to Purchasers of Vines.

1st. The charges against C. W. GRANT, of stupendous fraud in hastening the ripening of the Iona and Israella grapes by means of "forcing arrangements of glass," etc., "which hastened their maturity three weeks in advance of those grown without such arrangements."

2d. The publication of these charges in the Ohio Farmer, under the signature of "Peconic," and in the American Agriculturist, by the same party, over his own name.

3d. The Greeley Prizes, and the award of the One Hundred Dollar Prize to the Iona. The charges, or, rather, insinuations by Mr. Byram that this award was dishonestly and corruptly made, implicating the Committee, Mr. Greeley, and C. W. Grant, in the perpetration of a gross fraud.

4th. The same charge, more covertly made in the American Agriculturist, when introducing the accusation of Mr. Byram.

5th. The claim of the American Agriculturist that it should not be held as a principal party in the Libel against C. W. Grant, implying its right to publish accusations the most destructive to reputation and business, under the plea that it does not know them to be false, and that it entertains no malice against the accused.

6th. The fallacy and wrong of this Plea, and the Opinion of one of the most able Legal gentlemen of New-York upon the subject.

7th. The accusations of "Piracy" and "Humbugging" against C. W. GRANT, for alleged copying and imitating plates, and also of using some of the identical plates of a book Published by A. S. Fuller, on the Vine, in his own (C. W. Grant's) Publications, named severally, Descriptive Catalogue, Illustrated Catalogue, and Manual of the Vine. The truth shown to be quite the reverse.

8th. Charges of Deception and unbusiness-like conduct in claiming to produce better vines, by additional care and expense for garden and vineyard, than those ordinarily produced by nurserymen.

9th. Concerning the advocacy of new and peculiar theories, and new and peculiar methods of cultivating and training Vines in garden and vineyard.

10th. Is the present desire to plant the best kinds for family supply and for market, and also for wine, unreasonable, and what will be the result of it?

11th. Where can be found, precise, accurate and intelligible Descriptions of all of our Native Grapes, that are worthy of notice, so stated that an ordinarily intelligent reader may learn their character, quality and relative value.

12th. Upon what peculiar conditions of merit are the claims to Public Attention of the Descriptive Catalogue, Illustrated Catalogue and Manual of the Vine founded, and which are said to constitute them a thorough and comprehensive treatise on the vine? The foregoing twelve heads require each an extended

chapter for the full consideration, which the subjects embraced at present demand. This would require more room than the advertising columns of a periodical not specially devoted to the Vine, can furnish. There are other heads of equal, or even greater interest, not named. One of which is the History and Management of all of the Israella and Iona Vines, at Iona Island, showing fully and fairly their deportment under given circumstances, from the beginning, up to the present time. Another is, an account of the manner in which these Seedlings were produced, by which hints will be furnished to others of the course of proceeding to produce other improved kinds by "thorough breeding," which is undoubtedly the only method by which a hardy stock, perfectly adapted to this country can be obtained.

I have prepared a pamphlet of twenty-four pages in which all of these matters are briefly, but clearly treated, and in a manner calculated to give a true impression in regard to Grape Culture in all its aspects, whether for wine or for table—for market or for family supply.

In this pamphlet, the distinctive characteristics of the Iona and Israella, in which they greatly excel all other grapes for market and for table use, are clearly represented. The Israella being the earliest grape of excellent quality, and at the same time a good keeper, producing abundant crops unflinchingly, as grown in the open ground under the ordinary circumstances of cultivation, or rather under circumstances less favorable than those of ordinary garden or vineyard culture.

The Iona is also represented as very early in ripening, and as the only American Grape of large size that is equal to the best European kinds, in sweet, rich purity of flavor, and uniform tenderness and excellence of flesh quite to the center, and at the same time remarkable for the earliness and abundance of production, and its certainty of perfect ripening under the conditions of ordinary cultivation in full exposure in open air. Mr. Byram states that "to his personal knowledge" this earliness and excellence of quality was produced by "forcing arrangements of glass and walls, or screens combined, by which the quality of the fruit was greatly improved, and the time of ripening hastened at least three weeks."

These charges, if substantiated, fix upon my character an accumulation of guilt that is most painful to contemplate, combining falsehood in its most treacherous form, with cheating that is worse than robbery. The effect upon the Public will be to destroy general confidence in all engaged in the business, and upon myself, the ineffaceable brand of infamy will be stamped, involving in lasting shame all that own any connection with me.

These accusations were published in the Ohio Farmer, under the signature of "Peconic," and in the American Agriculturist by the same party, under his own name, H. P. Byram.

One of the prizes offered by Mr. Greeley, under certain conditions for the leading fruits, Apples, Pears and Grapes, was awarded to the Iona Grape, by the Committee of the Fruit Department of the American Institute, in Sept. last.

The award of this important premium of One Hundred Dollars Mr. Byram represents as having been dishonestly and corruptly made, implicating the Committee, Mr. Greeley, and C. W. Grant, in the perpetration of a gross fraud. The charge is pointedly made, but the precise form of the crime is not given. The same charge, more covertly, but not less certainly, is made by the American Agriculturist. This is also a matter of much importance, and I would hereby call upon the whole Committee to state to the Public not only whether any dishonorable or corrupt action or influence was manifested by myself, or in my behalf, but whether any such influence came to their knowledge from any quarter, and if so, what was the form and purport of it.

I would here state, that no such transaction as is represented, ever took place between Mr. Greeley and myself, and that I never paid; or procured to be paid to Mr. Greeley, or to the Tribune Association, any money except what was applied for advertising, for which I have sent several sums of One Hundred Dollars each, and often much larger.

The claim of the American Agriculturist, that it should not be held as a principal party in the libel against C. W. Grant, is not to be entertained for one moment, and the plea that a character blighted, and a business destroyed, can be restored by a discussion on equal terms with the destroyer, with the Editor's whole weight thrown adversely at the beginning, and the calumniation placed with his falsehoods and wicked purposes, not only before, but also above his victim, by giving the presumption in favor of the accuser. The Editor is forgetful of the principle upon which the proverb of acknowledged wisdom is founded: "A malicious lie will travel many leagues, while truth is getting ready his sandals, and will be hospitably entertained where truth will be shut out."

A case in point is ready at hand. A few weeks since a report was published in a leading paper representing me as a falsifier and swindler on a large scale. A full and complete refutation followed immediately, prepared and signed by men disinterested and of high and well known character. The malignant part of the report was copied in all parts of the country, with added venom, but the refutation not once. The fallacy and injustice upon which the plea of the Agriculturist is founded, are well disposed of in the following letter from one of the most eminent gentlemen of the New-York Bar, having this particular case in mind.

NEW-YORK, Jan. 12th, 1865, No. 11 Pine-st.

Dr. C. W. Grant.

Dear Sir,—Nothing can be better established in law than that the Editor of a paper is responsible for everything that he admits into its columns, whether he is the author or not. If he permits libellous matter to be published, he must respond in damages to the extent of the injury inflicted, whatever that may be.

He is not permitted to shield himself by the fact that the injurious publication was made without his knowledge or consent, for the conductor of a public paper is bound by the highest obligations, to see to it that so powerful an engine as the press is not used by others, for wicked purposes. He is bound to know before he suffers anything to be published that it is true, and must answer for it if it is not, though actual malice on his part, can not be imputed to him. If the publication is false, malice is always presumed from that fact, and the Editor who lends his columns to the defamer can overcome that presumption only by showing a degree of carelessness on his part which is equally obnoxious to the law.

Yours truly, WILLIAM FULLERTON.

In defending myself against the charge of unfairness and dishonesty, under the 7th head, I must necessarily become by implication the accuser of A. S. Fuller. My publications containing these plates were chiefly made years before his book appeared, and of course could not have been taken from it. On the contrary, so many of the plates on the management of the vine were my own (used without permission or one word of acknowledgment)—that if these were taken from his book, together with those copied or closely imitated, few of much value would be left. To my mind it is a flagrant case of violation of right, that should have been prosecuted. Concerning the numerous errors into which he has fallen through ignorance and inexperience, I shall speak elsewhere.

In answer to the 8th I would say that I was not only the first that practised the method of propagation that by thorough trial is proved and admitted to be the best, but was for several years alone in it, and that all of the numerous imitations now found in different parts of the country may be said to have grown out of mine. I may also safely say that no one has nearly equalled mine in extent and means of producing the best vines for garden and vineyard planting. The idea and purpose upon which I engaged in the undertaking, and to which I have persistently adhered, was THE PRODUCTION OF THE BEST PLANTS TO BE AFFORDED AT THE CHEAPEST RATES TO THE PEOPLE GENERALLY, making the business a SPECIALTY, and giving abundant means, with my whole care and attention to that end.

When after long study, careful observation and extensive trial, I have learned what is best for those who wish to plant for any given purpose, and have produced a stock of surpassing quality, there is no way apparent to me by which the public may be reached to enable it to be benefited by them except by stating truly and precisely the character of what I have to offer. I have done this so long and so extensively, and by doing so have disseminated such a vast number of vines throughout every part of the country, that my jurors (the purchasers) must now be ready for rendering a verdict. I have recommended first class vines (that have been produced with great care and cost, and such as I felt assured were of unequalled quality), as the best and cheapest to purchasers for vineyards, as well as for gardens. I have produced large stocks of Delaware vines of this class for many years, increasing the number as the demand consequent upon their goodness and reputation increased.

Last fall MORE THAN MY ENTIRE STOCK OF DELAWARE AND DIANA VINES FOR VINEYARD PLANTING WERE ORDERED AT THE BEGINNING OF THE SEASON. This I accept as a verdict in my favor, and above all as a good omen for the success of vine culture. The demand for vines of the best class of these kinds for family supply has also vastly increased, as it has been expected from the education of the public taste. This is not surprising to those who have learned the excellence and value of good grapes.

As to the 9th I can only say here the subject of vine culture has been of exceeding interest to me from my childhood, and that I had long been familiar with the principles and practice of the cultivation of both native and foreign kinds before saying one word to the public concerning either, and when I spoke it was according to my own carefully wrought out experience, the reproach of which is not severe to bear. My publications have been the outgrowth of my own personal practice, and made because I thought them suited to the public need at the time. I have never advocated any new theory, nor have I claimed the invention of any new system or methods of training. My labor has been to explain and teach to beginners those which have been well known and established for ages.

I have scarcely touched upon the subjects of the three last heads here, but the matter is fully treated in the pamphlet. All of these minor imputations have been in circulation a long time, being thought unworthy of notice: but when they culminated in charges of stupendous fraud, I could no longer forbear.

IONA, Jan. 18, 1865.

C. W. GRANT.

50,000 CONCORD VINES.

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Our Descriptive Catalogue

OF
Flower and Vegetable Seeds,
IS NOW READY,

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PETER HENDERSON, } HENDERSON & FLEMING,
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THE VENEER FRUIT BASKET.

Patented May 31st, 1864.



therefore prevents the pressure on the lower tier of berries when being transported to market, nests closely together when empty, and is neat, stylish, durable and cheap.

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Petroleum Burner and Heater.

This Burner can be filled, trimmed, and lighted without removing the chimney or unscrewing the Burner.

It is not clogged by crust. It gives the best light, and produces no odor. The short chimney is seldom broken by heat, and can be easily cleansed. The Burner can be fitted to all ordinary lamps.

An attachment of small cost gives ready means of heating water, making it invaluable in the nursery or sick room.

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Agricultural College

of the State of Michigan.

The classes for the term of 1865 will be organized on Wednesday, March 1st. This Institution is supported by the State, and has a full corps of Professors, a Farm, Gardens, Fine Stock, an excellent Chemical Laboratory, &c. Students are received to a full course of four years, or to a select course of any length. The course of study is intended to furnish a thorough English and Scientific Education.

Students are required to work three hours a day on the farm, and a moderate compensation is allowed for each hour's work.

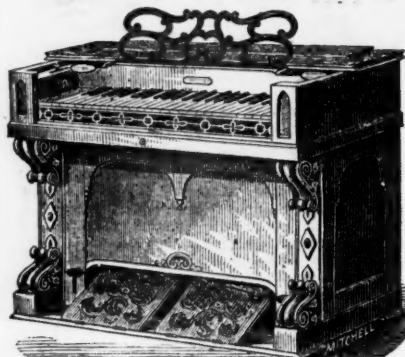
Tuition is free to Students from the State—to others \$30 per Annum. Board is furnished at cost: during the last half of 1864, it was at the rate of \$3 50 per week, nearly one half of which was in most instances paid by the labor of the Student. For further information, or Catalogue, Address

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Lansing, Michigan.

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AUTOMATIC ORGANS!



\$52 to \$525 Each.

39 Varieties, with Patent Basso Tenuto or Sub Bass.

SCHOOL ORGANS AND MELODEONS,

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Elegant Rosewood, Walnut or Oak Cases.

EVERY INSTRUMENT WARRANTED FOR FIVE YEARS.

No Charge for Boxing or Shipping.

35,000 NOW IN USE.

AN ILLUSTRATED CATALOGUE, CONTAINING full description of style, and testimonials of the most eminent Musicians, as to the superior excellence of our instruments—will be sent free to any address.

THE AUTOMATIC ORGAN.

In presenting the Automatic Organ, we boldly announce the greatest triumph in musical instruments of the age. During the past half century, the French and Germans have manufactured reed instruments with double bellows, and two pedals for the feet to operate, but the want of the reserved or Exhaustion Bellows, (which is the only bellows used in our instruments), made it impossible for them to produce the mellow, rich and musical tone for which our instruments are celebrated.

Another objection to this method of blowing was that, both feet being occupied, no opportunity was offered for the management of the swell. Within the past two years, instruments constructed on the European plan of "double blowers," have been manufactured in this country, and to counteract this difficulty (want of a swell) a lever has been projected from the centre of the instrument, to act upon the swell, and operated by the knee. The inconvenience and contortion necessary to effect this object are disagreeable enough to a gentleman, but to a lady the use of such an appendage is nearly impossible.

Our Automatic device obviates the difficulty entirely, the simple act of blowing with more or less force giving the desired increase or decrease in the volume of tone. We predict for this invention a brilliant future.

THE MELODEON AND SCHOOL ORGAN.

For seventeen years the superior excellence of our Melodeons has not been questioned, and for two years past the enormous demand has made it impossible for us to meet our orders promptly. With our increased facilities, we feel warranted in assuring our patrons that their orders will be promptly met, and solicit a continuance of their patronage.

GEO. A. PRINCE & CO.

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Spring Session commences February 8th, 1865. Thorough drill in English Branches. Preparatory, Academic, and Collegiate Departments. Superior facilities for French and Music; two Professors being exclusively devoted to the Piano. Splendid brick buildings, elegantly furnished (whole cost, \$75,000); numbers limited. Send for Catalogue.

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THE UNIVERSAL Cog-Wheel Clothes Wringer

was pronounced superior to all others at

The World's Fair, in London, 1862,
received the **BRONZE MEDAL** (highest premium) at the Great Fair of the
American Institute, in New York City, in 1863.

It has also received the

FIRST PREMIUMS

at the following STATE FAIRS:

NEW YORK	1862	1863
VERMONT	1863	1863
PENNSYLVANIA	1863	1864
MICHIGAN	1864	1864
ILLINOIS	1863	1864
IOWA	1863	1864
WISCONSIN	1863	1864
CONN. RIVER VALLEY FAIR	1864	1864
CHAMPLAIN VALLEY FAIR	1864	1864

and at the principal COUNTY and INSTITUTE FAIRS throughout the land.

Opinion of Orange Judd, Esq., Editor American Agriculturist.

It is, in reality, a *Clothes Saver! a Time Saver! and a Strength Saver!* We think the machine more than pays for itself every year, in the saving of garments! There are several kinds, nearly alike in general construction, but we consider it important that the WRINGER be fitted with COGS, otherwise a mass of garments may clog the rollers, and the rollers upon the crank-shaft slip, and tear the clothes. Our own is one of the first made, and it is as good as new, after nearly four years' constant use!

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Prices for the best family sizes—WITH COGS—No. 2, \$10. No. 1, \$12. On receipt of the price from places where no one is selling, we will send the U. C. W. free of expense. **EVERY WRINGER WITH COGS IS WARRANTED!** Good canvassers can find profitable employment selling the U. C. W. For terms and Circulars address

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Ladies try Them. They will make your hair wave beautifully without heating it. For sale at Variety Stores throughout the country. Retail merchants will be supplied by any first-class jobber of notions in New-York, Philadelphia, Pa., or Boston, Mass.

Stammering

Cured by Bates' Patent Appliances. For pamphlet, address H. C. H. MEARS, 277 West 23d-st., New York.

\$1. Preserve Your Eggs. \$1.

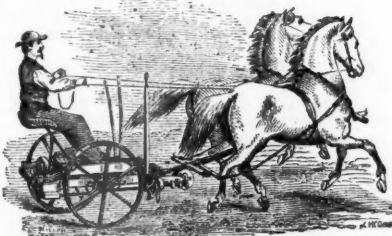
Perkins' Patent for Preserving Eggs, Meats,
&c., April 19th, 1864.

Individual Rights to Farmers for \$1.00.

APPLY TO THE AGENT INCLOSING THE ABOVE SUM.

Every person having half a dozen hens should have the right to use this process, and thus always secure the luxury of fresh eggs. The advantages will at once commend themselves to every one, as the preserving of eggs from plentiful to scarce seasons has been the subject of many, (and heretofore unsuccessful) experiments. Perkins' Patent is the only successful process yet known, eggs prepared by the Patentee and Agent have proved perfectly sound when 18 months old. This process has been well and thoroughly tried during the last 3 years, and while all other means have failed, this uniformly preserves the egg, and is at once, **Cheap, Simple and Sure.**—The Agent and Patentee have determined to offer this valuable process for preserving eggs directly to the Farmers, and at a price that all can afford to have it, trusting they will not be slow in availing themselves of the advantages offered. Apply to HENRY E. RICHARDS, Bloomfield, N. J., inclosing **One Dollar.** Give Post Office Address distinctly, and in the order of application, the right will be mailed with full directions, and the method of preparing the egg shown by an engraving.

HENRY E. RICHARDS, Bloomfield, N. J.,
Agent for JAMES PERKINS, Patentee.
Eggs prepared under this Patent are on exhibition at the office of the American Agriculturist.

BUY THE BEST!

ON THE ROAD.

BUCKEYE MOWER**AND REAPER.**

Manufactured by { C. AULTMAN & CO., Canton, Ohio.
ADRIANCE, PLATT & CO.,
165 Greenwich-st., New-York.

In reply to many inquiries, we have to announce that, UNTIL FURTHER NOTICE, orders will be received at the following

NET CASH PRICES:**C. AULTMAN & CO.'S**

Machines Delivered at Canton, Ohio.

JUNIOR MOWER.....	4 ft. 1 inch cut.....	\$175
SENIOR MOWER.....	4 " 8 " " " " " " "	200
MOWER AND REAPER.....	6 " " " " " " " "	230
" " " " " " " "	" " " " " " " " " "	250
" " " " " " " "	" " " " " " " " " "	250

ADRIANCE, PLATT & CO.'S

Machines Delivered at New York or Po'keepsle.

No. 2 MOWER.....	4 ft. 1 inch cut.....	\$175
No. 1 MOWER.....	4 ft. 8 inch cut.....	200
No. 1 MOWER AND REAPER.....	5 ft. cut in Reaping.....	240

A LESS AMOUNT OF FARM PRODUCE PAYS FOR A MACHINE AT THESE PRICES THAN WAS REQUIRED WHEN PRICES WERE NOMINALLY THE LOWEST.

By the beginning of Spring we were obliged to stop receiving orders, last year, and the demand is greater and earlier this season.

By ordering at once the Farmer not only makes sure of the **BEST MACHINE**, but avoids the risk of a further advance in prices.

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Seeds, Implements, Fertilizers.**Plants**

Of every variety for sale by

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**UNION
MOWING MACHINE.**

This Machine has been in use four successive harvests, and has met with the hearty approval and well merited praise of practical farmers. We call the attention of farmers to our Mower for 1865, of superior manufacture, and possessing new and valuable improvements.

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WHITCOMB'S**Horse Hay Rake.**

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The **LIGHTEST, SIMPLEST** most **COMPACT** and **CONVENIENT FORK** in use. Is made entirely of **Iron and Steel**, in the most durable manner, having no wooden head to split and allow the teeth to get loose.

Agents Wanted.

SHARE'S Patent Coulter Harrow

" " Hoer and Hiller.

HALSTED'S Cultivator and Seed Drill.

BROWN'S Ice Cream Freezers.

Agricultural Implements of all kinds.—Seeds, Fertilizers, &c.

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It has been in constant use in the family of Mr. Judd, the Proprietor of this Journal, and in that of Mr. Munn, proprietor of the Scientific American, since 1861. For description see advertisement in preceding numbers of the Agriculturist.

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No glass chimneys needed. We are now manufacturing our unrivalled non-chimney Burner in such quantities as to be able to offer it to all who use lamps. It is the only reliable non-chimney Burner. It makes a clear, soft and steady light, without smoke or odor, consuming the carbon by jets of air entering the interior of the flame. It holds the flame and can be carried about like a candle. It saves the eyes, the fingers, half the oil, and all the expense of chimneys. It is the best night lamp, and is perfectly safe and reliable in every way. It is simple in operation, and never gets out of order. It will fit your lamps, as the screws are of uniform size in the lamps now made. You can buy directly of us, through the mail, without regard to dealers, who make their profits mainly from the sale of chimneys. Mailed; postage paid, to any address on receipt of seventy-five cents, with wick ready for use.

N. B.—For twenty-five cents additional we will mail, post-paid, one year's supply of wicks. Write to
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Mallory & Sanford's**FLAX BRAKE.**

What it will Do.

Read the following Letter from a Manufacturer.

SALEM, N. Y., Nov. 30, 1864.

John W. Quincy, Treasurer, &c.

I started a new Flax Mill this year, and feeling that the price of your Brakes was so high, thought I would economize by purchasing an improved old-fashioned Brake, which I did, and placed it in my new mill, and run it four days. After running two days, I was determined to test it thoroughly with the two Brakes I purchased of you, two years since, and have been running in my old mill at Lake, ever since. My tests are as follows:

On average rotted straw, your Brake would give every time full 100 lbs. more of dressed flax to the ton than I could with the greatest care get from the old Brake. On over-rotted straw I got over 200 lbs. more than I could get by the old Brake. I stopped dressing and went to figuring, and found that to dress the flax I now have, with the old Brake, would cost me over \$8,000 (loss). I therefore want you to ship one of your Improved No. 1 Brakes by Express, as my men will dress no more flax in this mill until the new Brake arrives. Enclosed please find check for \$435.

Yours respectfully,

P. T. BURDICK.

For further particulars of this case and many similar ones, and for full information concerning the **M. & S. FLAX BRAKE**, send for Circular to

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Consists of a stout Canvas, impregnated with a perfectly water-proof and incombustible compound, covered on both sides with a stout fabric made water-proof by a solution of INDIA RUBBER, and hardened by a coating of PATENT METALLIC PAINT.

It is thoroughly WATER-PROOF.

It rolls up and unrolls like a piece of oil-cloth.

It makes the best and most durable READY ROOFING ever introduced.

It is designed for DWELLING HOUSES, BARNs, SHEDS, STEAMBOATS and RAILWAY CARS.

It can be laid down by any sensible working man.

It is CHEAPER than any known ROOFING OF EQUAL DURABILITY.

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LEAKY SHINGLE, CANVAS or FELT ROOFS

can be made water-tight by using the GUTTA PERCHA CEMENT.

LEAKY TIN ROOFS will wear five times as long if coated with the GUTTA PERCHA CEMENT PAINT.

the best Paint for Agricultural Implements, out-buildings, Fences, &c. &c. Manufactured ready for use by the

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Sole Manufacturers of the Gutta Percha Cement Roofing.

Patent Gum Spring Grain Drill.

The shovels of this Drill have a Patent Gum Spring attached, which enables the Drill to pass over rocks, stumps and other obstructions, without stoppage or breakage. The seeding apparatus also consists simply of two vulcanized India Rubber Rollers revolving together, and passing down the grain with perfect regularity, and without bunching or choking. SOWS ALL KINDS OF GRAIN. Hundreds of these Drills are now in use in Pennsylvania, where they are preferred to any other drill. Retail price \$1 00. Orders addressed to F. GARDNER & CO., Carlisle, Penn. Manufacturers. Local Agents wanted, and State and County Rights for sale.

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Peels rapidly, Runs easily by hand or Horse power, will not injure the Willow in the least. A durable and honest article. Send with stamp for Circular, with description and price. Made and sold by

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In addition to the manufacture of Steam and Horse Power Threshing Machines, we are building extensively Cross-cut and Circular Saws. The Cross-cut or Drag Saw is intended to attach to Horse Powers of all kinds, and will saw from 20 to 40 cords of stove wood in one day. We build two sizes of Powers suitable to run them. One is a two-horse Power, while the other is heavier and is designed for either two or four horses as may be desired. These machines are in general use and every farmer should have one. Our Circular Saw for cutting cord wood, limbs and poles into stove wood is the best arranged and most desirable style in use. Our machinery is not only substantially built out of the best of material, but is finished off in a very tasty manner. Address
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Green and Dried Fruits, Furs, Skins,
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Lester's Pure Ground Bone.
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E. F. COE'S SUPERPHOSPHATE OF LIME.
Bruce's Concentrated Fertilizers.
Plaster, Poudrette, etc.

For sale in quantities to suit purchasers. SEND IN YOUR ORDERS EARLY.

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The Company manufacture also Bone Tafu (a substitute for Superphosphate and Guano) from bones, blood, offal, night soil, and Peruvian Guano, ground fine. Price \$50 per ton.

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Ammoniated Pacific Guano.

A real guano, containing from seventy to eighty per cent of Phosphate of Lime: to which has been added by a chemical process, a large percentage of actual Ammonia, so fixed that it can not evaporate, making it equal, if not superior, to any other fertilizer. Price \$80 per net ton. A liberal discount to the Trade.

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CONCENTRATED MANURE,**

Bruce's Concentrated Manure is no longer an experiment. Three years' trial has proved its superiority over all other fertilizers. It is not because of its

VALUABLE COMPOUNDS

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Great Fertilizing Power ;

It is also in the Patent process through which it passes in its manufacture, by which we are enabled to concentrate the necessary food for vegetation.

Bruce's Concentrated Manure

was first brought to the notice of the Agriculturists of this country in the year 1863. About Fifty Tons were sold during the year, direct to farmers, with satisfactory results. The following year (1863) orders came in to the amount of Four Hundred Tons, only Two Hundred of which could be furnished. The past year (1864) we sold nearly Six Hundred Tons, and notwithstanding the severe drought it has more than met our expectations. In order to supply the demand the coming season, we have been obliged to enlarge our Factory, and with improved Machinery and enlarged facilities, we hope to be able to manufacture,

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Those who have already proved the value of

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are CAUTIONED from purchasing an article bearing the name of Bruce's fertilizer; supposing it to be shon pure, as sold by us. The article sold by us is branded on each barrel,

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Manure.**

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GRIFFING BROTHER & CO.,
58 & 60 Courtlandt-st., N. Y.

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Nov. 2, 1864.

Griffing, Brothers & Co.

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D. C. BRAINARD.

Mr. D. C. BRAINARD, the writer of the above letter, is one of the New Lebanon Shakers—a practical man, and one who thoroughly understands agriculture in all its branches, and can appreciate a good fertilizer.

GRIFFING, BRO. & Co.

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In the price of materials, we shall sell

**BRUCE'S
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at the low price of

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It is packed in barrels weighing 270 lbs. each.

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